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ABSTRACT

This is one of a series of studies on the training, recruitment, and utilization of teachers in member countries of the Organization for Economic Cooperation and Development. This volume deals with Germany, Belgium, and the United Kingdom. The section on Germany (129 pages) has chapters on the German educational system, trends in the demand for and supply of teachers, factors accounting for changes in numbers of teachers, the age and sex structure of the teaching force, the training of teachers, the output of teacher training institutions, the utilization and deployment of qualified teachers, and working conditions and wage policy. The section on Belgium (45 pages) is in French with no translation. The chapters deal with training teachers, financial aid for students at teacher training institutions, recruitment of teachers, promotion opportunities, and retirement regulations. The section on the United Kingdom (133 pages) is in three parts: 1) England and Wales--educational system, demand and supply of teachers, training and retraining of teachers, recruitment policies and the quota, career structure of teaching and conditions of work, the demand for teachers, methodology of forecasting the demand and supply; 2) Scotland--educational system, training of teachers, quantitative data; 3) Northern Ireland--educational system, demand and supply of teachers, training arrangements, and quantitative data. Related documents are SP 005 359 through SP 005 364.

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ÉTUDE SUR LES ENSEIGNANTS

**GERMANY
BELGIQUE
UNITED KINGDOM**

STUDY ON TEACHERS



DIRECTION DES AFFAIRES SCIENTIFIQUES

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

DIRECTORATE FOR SCIENTIFIC AFFAIRS

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

1969

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**FORMATION, RECRUTEMENT
ET UTILISATION DES ENSEIGNANTS**

**TRAINING, RECRUITMENT
AND UTILISATION OF TEACHERS**

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**COUNTRY
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**ENSEIGNEMENTS
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**PRIMARY
AND SECONDARY
EDUCATION**

**GERMANY
BELGIQUE
UNITED KINGDOM**

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

1969

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The Organisation for Economic Co-operation and Development was set up under a Convention signed in Paris on 14th December 1960 by the Member countries of the Organisation for European Economic Co-operation and by Canada and the United States. This Convention provides that the OECD shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The legal personality possessed by the Organisation for European Economic Co-operation continues in the OECD which came into being on 30th September 1961.

The members of OECD are Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

L'Organisation de Coopération et de Développement Economiques a été instituée par une Convention signée le 14 décembre 1960, à Paris, par les membres de l'Organisation Européenne de Coopération Economique, ainsi que par le Canada et les Etats-Unis. Aux termes de cette Convention, l'OCDE a pour objectif de promouvoir des politiques visant :

- à réaliser la plus forte expansion possible de l'économie et de l'emploi et une progression du niveau de vie dans les pays Membres, tout en maintenant la stabilité financière, et contribuer ainsi au développement de l'économie mondiale;
- à contribuer à une saine expansion économique dans les pays Membres, ainsi que non membres, en voie de développement économique;
- à contribuer à l'expansion du commerce mondial sur une base multilatérale et non discriminatoire, conformément aux obligations internationales.

La personnalité juridique que possédait l'Organisation Européenne de Coopération Economique se continue dans l'OCDE, dont la création a pris effet le 30 septembre 1961.

Les membres de l'OCDE sont : la République fédérale d'Allemagne, l'Autriche, la Belgique, le Canada, le Danemark, l'Espagne, les Etats-Unis, la Finlande, la France, la Grèce, l'Irlande, l'Islande, l'Italie, le Japon, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni, la Suède, la Suisse et la Turquie.

Afin de faire le point sur la situation du corps enseignant au niveau de l'enseignement primaire et secondaire tant sur le plan quantitatif que sur le plan qualitatif, dans les années récentes et dans le futur, le Comité du Personnel Scientifique et Technique de l'OCDE a décidé d'entreprendre une étude de synthèse reposant sur des données de base recueillies dans un certain nombre de pays Membres de l'OCDE et consignées dans des monographies nationales. Cette série de monographies nationales est publiée en plusieurs volumes par les soins de l'Organisation.

In order to take stock of the current and future teacher situation in primary and secondary education, both in quantitative and qualitative terms, the Committee for Scientific and Technical Personnel of OECD decided to prepare a general report on this subject which would synthesise the data gathered in a certain number of OECD Member countries and which are presented in a series of country case-studies. This series of case-studies is published by the Organisation in several volumes.

GERMANY

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PREFACE

The programme of the OECD Committee for Scientific and Technical Personnel has given considerable attention to the problems connected with the demand for and supply of teachers as a vital element in the quantitative and qualitative development of the educational system. The quest for an equilibrium between supply and demand calls for the implementation of specific training, recruitment and utilisation policies in what is one of the most important sectors of highly qualified manpower.

Questions concerning the demand for and supply of teachers arose in several studies carried out by the OECD particularly in connection with (a) general studies on scientific and technical personnel in the OECD countries, (b) general policy and planning in the field of education in Member countries, (c) the recruitment and training of mathematics and science teachers.

In order to take stock of the current and future teacher situation in primary and secondary education, both from a quantitative and qualitative point of view, the Committee requested the Secretariat to prepare a general policy report on this question which would be based on the experience and data put together for a number of OECD countries in the form of individual country case-studies.

The present report on the German Federal Republic is one of the series of case-studies on the training, recruitment and utilisation of teachers in primary and secondary education. It was prepared by Mrs. Eva Ryten, Consultant to the OECD Secretariat. Several institutions and organisations in Germany provided the author with information for the Study. The Secretariat of the Standing Conference of Ministers of Education and Cultural Affairs was the principal amongst them. The OECD Secretariat is responsible for the final content and conclusions of the Study.

INTRODUCTION

The population of the 11 Länder (States) comprising the Federal Republic of Germany was over 59 million in 1965. In that same year, over 7 million pupils attended general primary and secondary schools and a further 2 million were enrolled in various types of vocational and technical secondary education. These pupils were taught by over 300,000 teachers. Global figures of this kind give some idea of the magnitudes involved and of the vast outlay of resources that the German educational system entails. Thus, it is not surprising that attempts should be made to estimate the future demand for resources in the educational system. A very large slice of current educational expenditure is accounted for by teachers' salaries, and teachers form by far the largest occupational group employed within the educational system. This being the case, any analysis of future requirements of the educational system is bound to pay a great deal of attention to the question of teachers.

This particular study, while well aware of the pedagogical side of all discussions of the teaching force, will concentrate on the more quantitative aspects relating to the demand for and supply of teachers. This does not mean that problems of quality will not be considered but rather that topics such as the content of teacher training courses will not be raised to any great extent.

CHAPTER I

THE GERMAN EDUCATIONAL SYSTEM

Teachers for different types of school have a different training and career structure. It is necessary to divide pupils in such a way that they can be meaningfully compared with the teachers who teach them. Below is presented a diagram of the German educational system and explanatory notes on kinds and types of education. This information is essential for readers who cannot be expected to be familiar with the German educational system.

A great deal of the data used in this report is the result of the work of the Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (1). The educational institutions covered by the work of this Committee are the same as those covered here, although it should be stated at the outset that höhere fachschulen and ingenieurschulen have recently been reclassified as institutions of post-secondary non-university education. These are institutions in which courses of education begin at what is normally considered the secondary level of education, but in their final stages these courses of education go beyond what is usually considered as being secondary education. Apart from these institutions, the demand for and supply of teachers in Germany concerns primary and secondary education of a general and vocational nature.

1. Institutions and education covered

Regular Educational System

1. General education

- (a) Volksschulen (Grund-und Hauptschulen) - elementary schools (basic schools and "main" schools)
- (b) Sonderschulen - special schools
- (c) Realschulen - intermediate schools
- (d) Gymnasien - senior secondary schools

2. Vocational and technical education

- (a) Berufsschulen - part-time vocational schools
- (b) Berufsfachschulen - full-time vocational schools
- (c) Fachschulen (including Höhere Fachschulen) - technical schools
- (d) Ingenieurschulen - colleges of engineering

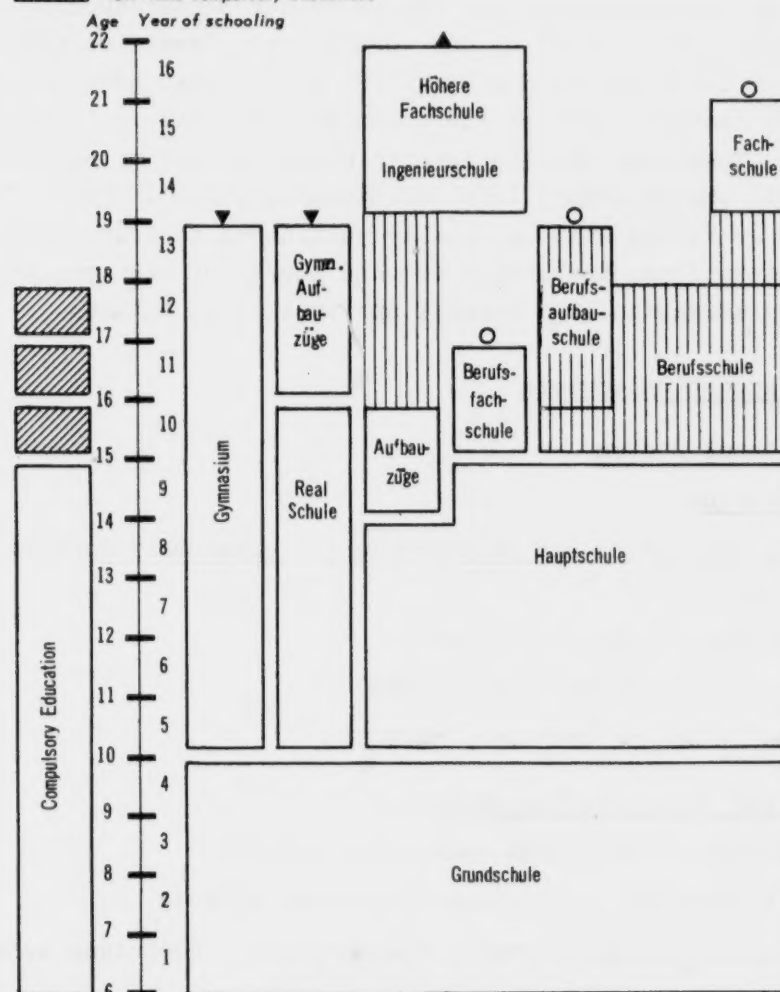
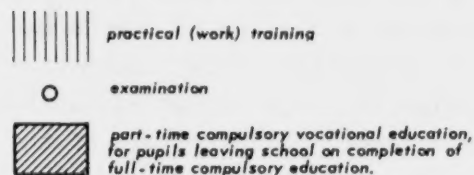
(1) The Standing Committee of the Ministers of Culture of the States of the Federal Republic of Germany. This Committee will be referred to from now on as the Standing Committee.

Education for Employed Persons (Zweiter Bildungsweg)

- (a) Berufsaufbauschulen - vocational extension schools
- (b) Abendrealschulen - evening intermediate schools
- (c) Abendgymnasien - evening senior secondary schools
- (d) Kollegs (Institute zum Erwerb der Hochschulreife) - colleges (institutes leading to university entrance qualifications).

THE GERMAN EDUCATION SYSTEM¹ PRIMARY AND SECONDARY EDUCATION

SIGNS AND SYMBOLS :



1. With minor modifications, what follows consists of excerpts from "School Systems: A. Guide". Council for Cultural Cooperation of the Council of Europe, Strasbourg 1965.

2. Administration

In the Federal Republic of Germany each of the eleven States (Länder, including the three city-States Berlin, Bremen and Hamburg) is the legislative and administrative authority for all matters concerning education including higher education, adult education, and cultural affairs in its own area.

To co-ordinate their work the Ministers of Education of the States have formed the Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (Permanent Conference of the Ministers of Education and Cultural Affairs of the States in the Federal Republic of Germany). One of the permanent committees of this Conference is the School Committee. It examines all matters of primary and secondary education, all matters pertaining to vocational and technical schools, colleges of engineering and teacher training requiring a joint solution and submits its proposals to the plenary session of the Conference. By the resolutions of this Conference, which can only be passed unanimously, each Minister binds himself to put these resolutions into practice or to support them in the cabinet and parliament of his State.

Educational institutions comprise public schools and private schools. All public and grant-aided private schools are supervised by the State, regardless of the body or person maintaining them.

Local communities and districts are generally responsible for the establishment and maintenance of public schools. The expenditure for the teaching staff of all types of schools is mainly covered by the allocations of the State budgets.

Teachers at public schools are mostly civil servants of the respective State and are required to have passed the State examinations appropriate to the branch of the teaching profession in which they are expected to serve.

General Principles

Education is compulsory up to the age of 18 years. Of this period of compulsory education 9 years (at present still 8 years in Bavaria) (1) are spent in a full-time school of general education. If the pupil then leaves the full-time school at the age of 15, he has to spend three more years in a part-time vocational school (Berufsschule).

3. School organisation

(a) General Education - Volksschule

All children having completed their sixth year must attend grades 1 to 4 of the first level of the Volksschule (in the three city-States of Berlin, Bremen and Hamburg grades 1 to 6 with certain modifications for pupils transferring to the Gymnasium). This first level is called Grundschule. For children of school age who are not yet sufficiently mature School-Kindergartens are provided, which form part of the public school system. The Kindergarten attended voluntarily by younger children is usually a private institution and in no case part of the school system.

After completion of the Grundschule a pupil can choose between the different types of secondary schools. He either attends the second level of the Volksschule (Oberstufe der Volksschule or Hauptschule), or transfers to the Realschule (secondary general school shorter course), or to the Gymnasium (secondary general school leading to higher education).

(1) By 1969 the ninth year of compulsory full-time general education will have been introduced in Bavaria also.

The majority of pupils remain at the Volksschule and leave after the 9th or 8th school year.

For physically or mentally handicapped children Sonderschulen (special schools) have been provided, which - like the Volksschule - have 9 or 8 school years. It must be mentioned that there are also special schools which work according to the curricula of the Berufsschule or the Realschule and in one case (for the blind) of the Gymnasium

The Realschule or Mittelschule, as it was formerly called (intermediate school, secondary general school shorter course), leads up to the 10th school year. Normally it follows the 4th primary school year and comprises six grades. The shorter, four-year course is the rule in the city-States and Bavaria and starts after six years of primary education.

In the Realschule one modern foreign language (usually English) is obligatory, while another (French) can be taken as an optional subject.

The leaving certificate of the Realschule provides opportunities :

- for taking up employment at an intermediate level;
- for entering, after two years of vocational practice, an Ingenieurschule or a Höhere Fachschule or other technical schools requiring this standard of education;
- for attending the upper grades of the Gymnasium or a Kolleg if the holder intends to sit for the Abitur.

In most States there also exist Aufbauzüge an Volksschulen (intermediate school courses combined with the Volksschule) starting at the latest after the 7th grade of the Volksschule.

The Gymnasium (secondary general school giving access to higher education) leads up to the 13th school year. It exists in three main types : the classical type, the modern language type, and a third type stressing mathematics and science. Normally the Gymnasium (normal form) starts after the 4th primary school year, whereas the Aufbauform or shorter form (only available in the modern languages and mathematics-science type) follows the 6th or 7th year. Instruction consequently lasts 9, 7, or 6 years.

In the classical type Latin, Greek and one modern foreign language, in the modern language type three languages (in two States two), one as a rule being Latin, are compulsory subjects. In the mathematics-science type two foreign languages are obligatory.

The Gymnasium ends with the Abitur (maturity examination) giving access to all forms of higher education.

A special type of the Gymnasium is the Wirtschaftsgymnasium (secondary general school, with an economics bias, leading to higher education), which - except in Bavaria where it has nine years - comprises only the last three grades of the Gymnasium. Two foreign languages are taught. The Wirtschaftsoberschule (secondary school with an economics bias) which is not to be confused with the Wirtschaftsgymnasium combines a general education with elements of a vocational education. It does tend however to develop into a Wirtschaftsgymnasium. It comprises grades 11 to 13 and gives access to higher studies in economics and social science.

In all States there exist Aufbauzüge (promotion schools) for graduates of intermediate schools, providing 3 to 4 year courses and enabling the pupils to take the Abitur (maturity examination).

The Frauenoberschule is a secondary school for girls, comprising either grades 11 to 13 or grades 7 to 13. Two foreign languages are taught and as a rule stress is laid on domestic and social sciences. The leaving certificate gives access to Pädagogische Hochschulen (teacher training colleges) and, with a supplementary examination, to all forms of higher education.

The Kolleg (institute preparing young adults for the Abitur) is an establishment founded after the second world war, which has in the last five years developed and spread greatly.

It provides able young people already in employment with an opportunity of preparing for the Abitur in full-time courses lasting, in general, 3 years and of thereby gaining access to higher all forms of higher education.

(b) Vocational and Technical Education

The Berufsschule (part-time vocational school) follows the completion of compulsory general education. Entrance is usually after the last grade of the Volksschule. Attendance up to the end of the 18th year of age (or termination of apprenticeship and at latest at the age of 21) is compulsory for all those not enrolled in a full-time school. It is the task of the part-time vocational school to complete and reinforce practical training gained in industry, trade, commerce, agriculture, home economics, mining, etc., by instruction related to the future job and at the same time to provide further general education. Instruction of 8 to 12 periods per week is given.

The Berufsfachschule (full-time vocational school) usually lasts 2 years. This type of school mainly prepares pupils for vocations in the field of commerce or domestic science. Vocational instruction and practical training are combined in the school itself. The leaving certificate of certain types of Berufsfachschule grants rights equivalent to those of the Realschule. The Berufsfachschule is mostly attended after successful completion of the Volksschule or sometimes of the Realschule. The most common form in this latter case is the Höhere Handelsschule (secondary commercial school).

The Berufsaufbauschule (vocational promotion school) has been developed during the last decade. Its aim is to qualify young working people by additional general instruction (including one obligatory modern foreign language) and technical education for the Höhere Fachschulen or Ingenieurschulen, which require the Fachschulreife leaving certificate of the Realschule (or equivalent, and a two-year period of vocational practice) as entry condition. Attendance is optional.

There are :

- part-time schools lasting three, or three-and-a-half years, attendance at which is simultaneous with that of the Berufsschule;
- full-time schools lasting one year, or one-and-a-half years.

The Fachschule (technical school) provides the pupil with a higher qualification in his chosen vocation after completion of vocational training. Its organisation and duration differ : instruction may be on a part-time or full-time basis; the length of training varies between 6 months and three years. The school leaving certificate generally gives the qualification of a foreman or technician. Among the most common types of Fachschule are Technikerschule (school for technicians), Meisterschule (school for master craftsmen), Fachschule für Kindergärtnerinnen (school for Kindergarten teachers) and Landwirtschaftsschule (school of agriculture).

Die Höhere Fachschule (advanced, technical school, just below university level, which has some characteristics of higher education) is a full-time school usually lasting three years. Entrance requirements are generally the completion of vocational training or sufficient practical experience as well as a general education of at least ten years as provided by the Realschule or equivalent institutions. The special importance of these schools lies in the field of commerce and social work. In special cases, students having completed the Höhere Fachschule may be admitted to the corresponding faculties of universities. The most common types of Höhere Fachschule are Höhere Wirtschaftsfachschule (advanced school of economics), Höhere Fachschule für Sozial Pädagogik (advanced school for nursery school supervisors and organisers of youth work).

Access to the Ingenieurschule (college of engineering) is possible under the same conditions as those of the Höhere Fachschule. The course of studies comprises three years in any one of the 17 recognised special courses (Fachrichtungen); graduates are entitled to be called engineers. Some graduates of engineering colleges may be permitted to continue their studies at technical universities or may, with an additional examination, gain access to all forms of higher education.

Zweiter Bildungsweg : this expression is used to denote the educational institutions that enable working people to obtain educational qualifications leading to occupational and educational advancement that they did not obtain when at regular schools. These qualifications are mainly the intermediate school (Realschule) leaving certificate and the Gymnasium school leaving certificate or equivalent qualifications giving the right to attend institutions of higher education. There is much discussion as to which institutions exactly come under this heading.

With this knowledge of German educational institutions, it is possible to proceed with the study of the demand for and supply of teachers in primary and secondary education since 1950, and likely future developments.

CHAPTER II

TRENDS IN THE DEMAND FOR AND SUPPLY OF TEACHERS

1. Factors affecting Demand for Teachers

The demand for teachers is a derived demand, derived from the volume of educational services to be provided. It is quite obvious that the number of pupils to be educated is of fundamental importance and hence the size of relevant age-groups is usually the first factor considered when teacher requirements are talked about. However, it is not only the number of pupils to be educated that determines the level of teacher requirements, but also the type of education they receive and the way courses of instruction are organised. A 16 year old pupil in a German school may be enrolled in a gymnasium, or a "real" school or a main school, or vocational school of various kinds. In each of these cases he would require a teacher with a different training. Thus it is not only the number of teachers that has to be determined in the light of the amount of education to be provided, but also the type of teacher to be provided. This means that in order to estimate teacher requirements, it is not enough to know how many pupils there will be, but also to divide them up by the type of educational course they will follow.

Once the total number of pupils is distributed by the type of education being received, the problem still remains to know how many teachers are required. This depends on the total volume (number of hours) of teaching to be carried out, the size of the groups (classes) into which pupils are divided and the subject matter they are taught. It also depends on how much one individual teacher teaches. In most schools, the higher grades turn out to be far more expensive in terms of teaching requirements than the lower grades. This is because classes in the higher grades usually have a smaller number of pupils than those in the lower grades, they require more specialised teachers and they have a higher number of time-table hours. Also, specialised subject teachers have a smaller number of hours' weekly teaching. Although there are variations from Land to Land, the data below give an idea of (a) the number of weekly lessons in the grades of the different types of schools, (b) the number of weekly lessons teachers of the various school types must give. It should be noted that teachers aged over 55 get a small reduction in the number of lessons they must give weekly, and a further reduction on reaching the age of 60. The actual number of hours involved varies slightly from Land to Land.

<u>Type of Institution</u>	<u>Weekly Teaching Obligations of Teachers</u>	<u>Weekly Classes of Pupils</u>
Volksschule	between 26/27 and 30 hours	From 18 to 21 in the lowest grades rising to 30, 32, 34 or 36 in highest grades
Realschule	between 24 (Bavaria) and 28 (Baden-Württemberg). In the lowest grades may be up to 30 hours.	From 29-32 up to 32-35
Gymnasien	24 or 25 (26 in Baden-Württemberg)	From 32-35 in lowest grades up to 33-38 in the highest (tendency towards fewer classes)
Berufsschule	between 24 and 28 according to type of school and subject	between 4 and 12 hours according to subject of study
Berufsfach and Fachschulen	between 24 and 28 according to type of school and subject	between 30 and 48 depending on length of course and subject of study

(valid as of 1965)

Note :

Here is an example of the meaning of these factors : from looking at this table, it can be seen that "real" school teachers in Bavaria have a teaching load of 24 hours weekly and those of Baden-Württemberg a load of 28 hours weekly. It is not surprising, then, that Bavaria needs more teachers for each operating class in the "real" schools. When a comparison is made between schools in these Länder, the following results are obtained :

"Real" Schools 1965

	Baden-Württemberg	Bavaria
Pupils	69,520	77,033
Classes into which pupils are divided	2,174	2,348
Pupil/class ratio	32.0	32.8
Teachers	2,895	3,906
Teachers per class	<u>1.33</u>	<u>1.66</u>
Pupils per teacher	24	20

From the above figures it can be seen that although average class size is higher in Bavaria than in Baden-Württemberg, the former has 20 pupils per teacher and the latter 24. This reflects the fact that teachers in Bavaria have a lower teaching obligation than their counterparts in Baden-Württemberg. These observations are made here because very often the pupil/teacher ratio is examined without any regard to teaching obligations. If a comparison were made in the above case a false inference would be drawn that Bavaria had more favourable conditions than Baden-Württemberg, whereas in fact, they have more pupils per class.

Three relatively simple statistical measures can be used to summarise the majority of the factors affecting demand for teachers. They are the number of :

- (a) pupils (distributed by type of education)
- (b) teachers (preferably including an allowance for part-time teachers expressed in terms of full-time equivalents)
- (c) classes (a class is a group of pupils usually instructed together).

From these basic data can be derived the most significant measures regarding teacher demand. The first of these is the pupil/class ratio for each type of education into which pupils are divided (a ÷ c). The importance of this measure cannot be exaggerated. If there are "not enough" teachers, the usual solution is to put more pupils in the same class (sometimes it is necessary to drop certain courses from the curriculum, but it is very difficult to get precise information on courses that have been dropped or new courses that cannot be given due to lack of teachers). The surest sign of improvement in the teacher supply situation is a reduction in average class size. Teacher requirements are often calculated assuming a desirable pupil/class ratio, and this will be done here also.

The number of teachers used per class for each type of education reflects differences in organisation, length of curriculum, amount of teaching done by each teacher, etc. For a given type of education this measure usually remains fairly constant unless some new regulations or practices are introduced. For example, if teachers' weekly obligations are reduced or the length of school curriculum prolonged, the number of teachers used per class will go up. If certain subject matter is eliminated or choice of subjects reduced, etc., this measure would go down. In any case, what needs to be remarked is that the point of interest is number of teachers per class and not teachers per pupil. This latter measure which is very often used, is only a poor substitute for what is really required. A teacher teaches a class of pupils, and in actual fact, an adjustment of the number of pupils per class is the mechanism by which a given number of teachers is shared out between a given number of pupils.

In the following paragraphs, developments in the various elements that come under items (a), (b) and (c) above will be traced, as far as possible, from 1950 to 1965 and then current trends and prospective developments that are likely to influence the demand for teachers will be discussed.

(a) Demand for Teachers, 1950 to 1965

In 1963 the Standing Committee of the Ministers of Culture of the States of the Federal Republic of Germany published its "Bedarfsfeststellung 1961 bis 1970" (1). This was the first official attempt to make a comprehensive analysis of educational requirements in the Federal Republic. The impact of this slim volume was very great indeed, and within a year education was a subject of national concern and of much public discussion. All of a sudden there was talk of a crisis in education and an emergency situation, etc. etc.

(1) "Assessment of Requirements from 1961 to 1970".

In fact, this can be looked upon as a somewhat delayed reaction to the after effects of the pre-war, war and early post-war period. It is not surprising that when the first complete survey was made of the state of education and of teacher and other resource requirements, many inadequacies showed up. After all, one of the main purposes of such surveys is precisely to point up areas of difficulty.

Immediately after the war, education was only one amongst many of the disrupted and dislocated fields of German life that required attention. At the time, it seemed inevitable that there was a shortage of schools and teachers, especially when it is remembered that a very large number of school facilities were destroyed, particularly in the large towns (1). Many indicators of the country's efforts in education in the early post-war years reflect this state of affairs. The schools were characterised by overcrowded classes and high pupil/teacher ratios. It may also be that as education is the responsibility of the Länder it took longer for the general public to become aware of national educational problems. All these factors taken together suggest that when the evolution of teacher demand and supply from 1950 to 1965 is looked at it would be wise to keep in mind the particularly difficult situation prevailing in Germany in the early post-war years.

For many of the factors affecting demand for and supply of teachers which will be examined in this study it will not be possible to give data for the earlier years. In some cases this is due to unavailability of data and in others to non-comparability.

(b) Demographic Factors

Very wide fluctuations in numbers of births from one year to another have meant that changes in the size of relevant school-going age-groups have brought about equally wide fluctuations in numbers of pupils enrolled in various levels and types of education in the period under review. In 1950, most pupils enrolled in the primary and secondary schools were born between 1930 and 1944. In 1965, most of the enrolled pupils came from the age-cohorts of the years 1945 to 1959. Thus interest centres on the population developments in the years from 1930 to 1959. Frontier changes and movements of population make analyses of earlier years particularly hazardous. Nevertheless, data are available of the number of persons of school-going age from 1950 onwards. These figures reflect the fact that up to 1940 the number of annual births was increasing constantly. From a peak in 1940 the number of births declined to a record low in 1946. After 1946 births started increasing again, though it is only in the mid-sixties that births equalled the record high level of 1940. The number of children born in the lowest birth years was only about 60 per cent of the numbers in the highest birth years. Such changes have tremendous impact on requirements for educational facilities. This can be easily shown by the following example. The number of young people between the ages of 18 and 20 in 1958 was 2,050,300. This is the age-group from which most of the pupils who qualify for university entrance (abiturienten) come. In 1964, this figure was 1,267,700 which is 62 per cent of the 1958 number. Thus it is to be expected that the number of secondary school leavers reflects this difference. Even though the relative number of pupils obtaining the secondary school leaving certificate has increased greatly, the absolute numbers have shown little change. The number of entrants to institutions of higher education itself depends on the numbers leaving secondary schools who are qualified to enter universities and other institutions of higher education.

The number of persons graduating from universities and other institutions of higher education in the next few years will reflect the low number of births between 1942 and 1948.

(1) See "Education in Germany" No. 8, July 1964, page 2. "In 1945, 70-90 per cent of classrooms in big cities - but also in many medium-sized cities and towns - were destroyed or unserviceable; in Bremen for instance the figure was 84 per cent, in Würzburg 85 per cent, in Stuttgart 75 per cent, in Cologne 88 per cent, and in Hannover 95 per cent.

As for the effects of population change on the children of school-going age, it should be noted that there were a million fewer children within the age-limits (6-14) of compulsory general schooling in 1956 than there were in 1950. Even in 1966 there were still slightly fewer children of compulsory school-going age than there were in 1950. This meant that immediately after the war, there were not only relatively few resources available for education, but also a particularly large number of children for whom educational provision had to be made. This also meant that even if the number of teaching staff did not show any great increase in the earlier years, the decline in the number of children alone would show that pupil/class ratios, or pupil/teacher ratios had improved. Below is given a table summarising the main population trends from 1950 to 1965. A close look at these data will show the changes from year to year in the size of the age-groups subject to primary and general and vocational, technical secondary education.

Because of the rather wide variations in the size of the age-groups and the fact that population data are not recorded at the same time of the year as educational data, it is not easy to separate changes in enrolment that are due to population changes from those that are due to a change in the demand for education. It is possible, however, to study the overall development in pupil numbers and their teachers in schools providing general education at the primary and secondary level.

For the purpose of instruction, pupils in a school are allocated to classes, according to their age and/or educational achievements. In the vast majority of cases, pupils in the same class are taught by the same teacher. For some lessons pupils may be divided up into groups, each group being taught by a separate teacher(1). This applies particularly to pupils in the higher grades of the school system, the pupils in gymnasium schools and "real" schools.

The mechanism for adjusting the number of teachers to the number of pupils is an increase or decrease in class size. Thus, an examination of the evolution of class size (i.e. number of pupils per class) gives the best picture of actual developments. Below is given information on the number of pupils, full-time teachers and classes in primary and general secondary education in Germany from 1950 to 1965. Many interesting conclusions can be drawn from these data. First of all, the data are presented and then they will be discussed.

It would really be desirable to take each type of school separately and analyse its evolution. This will be done in a later chapter using data from 1961 onwards, for the purpose of forecasting future requirements. The figures above are heavily weighted by the pupils of compulsory school-going age. As the effects of demographic factors are of considerable interest here, that is not a disadvantage. As has been mentioned above class-size is the key variable in any analysis of teacher demand and supply, and the first fact to be noted is that in the earlier years the number of pupils at school declined in almost exactly the same proportion as class-size. Taking 1950 = 100, we have pupils in 1956 = 83 and class-size also = 83. From this it is clear that the improvements that took place between 1950 and 1956 were almost entirely due to a drop in the number of pupils enrolled in schools, itself due mostly to demographic factors. It was not entirely due to pupil numbers, because at the same time the average number of full-time teachers used per class went up from 0.99 per class to 1.08, which is a 10 per cent increase. This change in the number of teachers per class used up the 10 per cent increase in the number of full-time teachers who became available between 1950 and 1956. The reason 10 per cent more teachers per class were required in 1956 than in 1950 was mostly due to there being far more pupils in "real" schools and gymnasiums. In these schools, average pupil/class ratios are generally lower than in the Volksschulen, and because of greater division of pupils into smaller

(1) Although modern educational ideas involve, to a certain extent, doing away with the practice of having fixed classes (groups of pupils) being taught all subjects together, present educational organisation makes the following analysis still valid.

Table 1

Population Aged 5-25 from 1950 to 1965

Age	between 5 and 6	between 6 and 10	between 10 and 14	between 14 and 15	between 15 and 16	between 16 and 18	between 18 and 20	between 20 and 21	between 21 and 25	between 6 and 14 (2 + 3)
Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1950*	(591.2)	(3126.5)	(3631.1)	(829.5)	(840.3)	(1376.3)	(1364.8)	(746.1)	(2940.0)	(6757.6)
1951	642.4	2762.7	3789.5	864.8	864.1	1662.8	1341.0	705.1	3056.2	6552.2
1952	683.3	2674.8	3617.8	920.9	867.4	1722.2	1481.2	684.3	3034.1	6292.6
1953	738.3	2623.7	3417.3	987.1	927.2	1749.6	1692.9	674.0	2958.1	6041.0
1954	775.3	2627.8	3172.3	1000.7	991.9	1812.6	1759.2	834.0	2877.6	5800.1
1955	768.8	2864.4	2814.5	924.2	1006.7	1940.4	1798.0	690.6	2962.4	5678.9
1956	753.4	2952.6	2686.1	745.6	917.9	1993.4	1837.8	898.5	3105.1	5638.7
1957	774.4	3077.9	2660.0	773.8	757.6	1947.3	1974.8	898.1	3212.0	5737.9
1958	773.3	3123.0	2668.8	757.0	779.4	1702.4	2050.3	966.5	3475.7	5791.8
1959	794.3	3114.0	2904.3	559.8	759.5	1549.5	1976.8	1029.1	3639.6	6018.3
1960	797.5	3134.4	3040.2	657.3	662.7	1553.0	1735.8	1045.8	3851.2	6174.6
1961	826.5	3128.2	3106.6	711.8	662.5	1334.3	1569.5	954.2	3902.0	6234.8
1962	857.9	3181.0	3130.5	756.5	713.4	1233.8	1585.5	784.8	3993.0	6311.5
1963	873.8	3273.4	3111.0	794.6	758.5	1385.9	1364.5	812.4	3835.5	6384.4
1964	923.4	3359.4	3117.6	792.5	797.2	1484.8	1267.7	795.6	3650.9	6477.0
1965	941.9	3494.7	3147.3	775.3	795.8	1571.7	1428.8	595.8	3434.8	6642.0

* Excludes Saarland

Age Groups

- (1) Children about to enter primary schools
 (2) Children in primary schools, following a common programme
 (3) Children still in compulsory education, either in Hauptschule, Realschule or gymnasium
 (4) Children who are about to complete compulsory schooling or enter the 9th school year under new regulations

(5) to (9) Young people who are either in upper secondary schools or in vocational or technical schools. Real school leavers mostly come from (6) and gymnasium school leavers with Abitur from (7) and (8)

(10) Total of children in compulsory education. By 1970 this total will include all children aged 15

Sources: For years 1964 and 1965, Statistisches Jahrbuch für der BRD, 1966 and 1967

For years up to 1963, Allgemeine Konferenz der Kultusminister, DOK. No. 17.

Table 2

General Education (Primary and Secondary)

Pupils, Classes, Teachers, 1950 - 1965

Year	Pupils	Classes	Full-time teachers			Educational Indicators		
			total	male	female	pupils per class	pupils per teacher	teachers per class
Absolute Numbers								
1950	7,581,594	181,275	179,088	110,300	68,788	41.8	42.3	0.99
1951	7,404,215	182,295	183,243	113,748	69,495	40.6	40.4	1.01
1952	7,040,387	181,448	188,432	116,767	71,665	38.8	37.4	1.04
1953	6,835,740	182,514	192,095	118,210	73,885	37.5	35.6	1.05
1954	6,574,000	180,737	194,360	118,910	75,450	36.4	33.8	1.08
1955	6,390,059	180,557	194,710	118,116	76,594	35.4	32.8	1.08
1956	6,289,544	181,180	196,545	118,427	78,118	34.7	32.0	1.08
1957	6,367,570	185,292	202,137	120,448	81,689	34.4	31.5	1.09
1958	6,368,742	186,061	204,609	120,522	84,047	34.2	31.1	1.10
1959	6,483,849	189,137	206,481	120,519	85,962	34.3	31.4	1.09
1960	6,646,301	193,285	209,771	120,784	88,987	34.4	31.7	1.09
1961	6,717,902	197,486	214,136	121,318	92,818	34.0	31.4	1.08
1962	6,849,318	203,436	222,126	123,345	98,781	33.7	30.8	1.09
1963	6,955,428	208,541	228,402	124,590	103,812	33.4	30.5	1.10
1964	7,083,434	215,306	237,013	126,692	110,321	32.9	29.9	1.10
1965	7,286,843	222,953	242,553	127,462	115,091	32.7	30.0	1.09
Index Numbers								
1950=100	100.0	100.0	100.0	100.0	100.0	100	100	100
1951	97.7	100.6	102.3	103.1	101.0	97	96	102
1952	92.9	100.1	105.2	105.9	104.2	93	88	105
1953	90.2	100.7	107.3	107.2	107.4	90	84	106
1954	86.7	99.7	108.5	107.8	109.7	87	80	109
1955	84.3	99.6	108.7	107.1	111.3	85	78	109
1956	83.0	99.9	109.7	107.4	113.6	83	76	109
1957	84.0	102.2	112.9	109.2	118.8	82	74	110
1958	84.0	102.6	114.2	109.3	122.2	82	74	111
1959	85.5	104.3	115.3	109.3	125.0	82	74	110
1960	87.7	106.6	117.1	109.5	129.4	82	75	110
1961	88.6	108.9	119.6	110.0	134.9	81	74	109
1962	90.3	112.2	124.0	111.8	143.6	81	73	110
1963	91.7	115.0	127.5	113.0	150.9	80	72	111
1964	93.4	118.8	132.3	114.9	160.4	79	71	111
1965	96.1	123.0	135.4	115.6	167.3	78	71	110

Includes: Volksschulen, sonderschulen, real (mittel) schulen, gymnasien and schools in the City States.

Up to 1956 inclusive, excludes Saarland.

Source: Statistisches Jahrbuch für die BRD, 1967.

groups for subject-teaching, more teachers are required per class. From 1950 to 1956, the number of pupils in such schools increased from 874,000 to 1,218,000 (an increase of over 39 per cent). The differences in class-size, etc., between the different types of school will be discussed in much greater detail later; the point has only been raised here to explain one of the main reasons for the increase in the average number of full-time teachers used per class. After 1956, the increase in teacher supply played a larger role in accounting for smaller average class-sizes than population factors. Even though the number of pupils began to rise annually from 1957 onwards, as late as 1965 there were still not quite as many pupils in the schools as there were in 1950 and 1951. Fortunately, from 1957 onwards, just as pupil numbers began increasing again, the supply of teachers began increasing at an even faster rate, so that the average class size still continued to fall. Since 1957 the average number of full-time teachers per class has changed only marginally, almost the entire increase in teacher supply from that date could be used to reduce class-size in spite of the growth in pupil numbers. Thus from a situation where in 1950 there were on average more than 42 pupils per class, by 1965 there were on average 32.7 pupils per class. If this figure still seems somewhat high the starting point needs to be remembered. One final factor in the evolution in teacher demand and supply from 1950 to 1965 should be noted. In 1950, female teachers represented 38 per cent of total full-time teachers. By 1960, they represented 47 per cent. There were 17,162 more full-time male teachers in 1965 than there were in 1950. There were 46,303 more female teachers, or an increase equal to 2.7 times as great as the increase in the numbers of male teachers. If Volksschulen were taken alone this rate would be even higher. Nevertheless, it can be readily seen that most of the improvement in conditions in German schools have been possible thanks to greater female interest and participation in the teaching profession. This feminisation of the teaching profession is one factor that will have to be looked into in greater detail further on.

So far, only general education has been considered, though it is clear that demographic factors, amongst others, affect requirements in technical and vocational education also. This is particularly true of the Berufsschulen, part-time compulsory vocational education for young people who have completed compulsory general education. It will not be possible to trace developments in technical and vocational education since 1950. Details since 1961 will be given later on when future teacher requirements are discussed.

(c) Institutional Factors : Recent Developments and Proposals for the Future

In recent years in Germany a great effort has been made to encourage young people to stay on at school longer, to enter the more academic types of secondary education, to provide working people with a second chance to obtain the educational qualifications they did not obtain through the regular educational system etc. Such efforts have a dual origin: on the one hand to encourage the democratisation of education and to provide equal educational opportunities for all, and on the other to ensure that the social and economic needs of the country can be met by an adequately educated and trained populace. Naturally this has given rise to much talk of educational reform, and measures have been taken to put many of the ideas into practice. All these elements affect both the number of teachers required and the type of teachers required. For example, as more pupils enter the gymnasiums rather than the haupt (main) schools than in earlier years, more gymnasium and fewer haupt school teachers are required.

Enrolments from 1961 to 1965 and forecasts for 1970, of pupils distributed by type of educational institution, are given below. From this information it will be possible to see how demand for different types of education is developing in Germany, and this will be followed by a description of the main institutional factors that have affected and may affect teacher demand, taking each type of institution separately.

The data in table 3 show which types of educational institutions grew fastest in terms of enrolment between 1961 and 1965, and which are expected to grow fastest between 1965 and 1970. It is clear that the more traditional elements of the school system (volkschulen and berufsschulen) have had the slowest increase in pupil numbers and will continue to have a relatively slower increase than the gymnasiums, "real" schools and institutions of the "Zweiter Bildungs Weg" ("Second Educational Path"). These figures alone cannot show the changes in pupils' preferences for certain types of education as the total number of pupils needs to be adjusted for population changes. The clear trend away from the upper section (hauptschule) of the volksschulen to the "real" and gymnasium schools on the one hand, and the movement from berufsschulen (part-time vocational schools) to full-time vocational and technical schools on the other, can be shown by the increase in the percentage of the relevant age groups receiving these types of education. Such movements have direct repercussions on teacher requirements. The evidence relevant to this trend is given below. It should be noted that in the most recent years the choice of "real" school or gymnasium rather than the main (haupt) school has been even more marked than is suggested by these figures, as the total of pupils for all years of study conceals the fact that there has been a very rapid rise in the number of pupils in the first year of study of "real" and "gymnasium" schools.

Table 4 makes it clear that there has been a change in pupils' choice of type of secondary education to be followed. In 1961, 10.4 per cent of the relevant age-group attended "real" schools, and it is expected that by 1970, this will be 15.3 per cent. The corresponding figures for the gymnasiums is a growth from 12.9 per cent to 17.5 per cent. As will be seen later, this means that a large number of new "real" school and gymnasium school teachers will be required in the future. This is only one example of institutional change within the traditional organisation and structure of the German educational system. There are very many others affecting all types of educational institutions and teacher requirements.

There has been a shift not only from one institution to another, but also movements for change within institutions. Along with many other European countries, for some years now, Germany has been trying to adapt a rather rigid and traditional educational system to modern ideas and needs without losing the undeniable advantages of the present one. The whole debate surrounding this question can for convenience sake be summarised with the words "dreigliedrigkeit oder gesamtschule" (this can be loosely translated as "three-pillared vertical structure or comprehensive school"). Of course, the argument did not originate clearly as an argument for or against comprehensive schooling, but rather in a concern with providing fairer chances and better education for all children. In 1959, the German Committee for Education founded in 1954 and now dissolved, (Der Deutsche Ausschuss für das Erziehungs- und Bildungswesen) published its Outline Plan for the Re-organisation and Standardisation of the Public Educational System (1). This concerned general education, and further recommendations from this Committee were forthcoming particularly some concerning vocational and technical education in 1964. The recommendations of this group show the way thinking was developing, and they have had quite a far-reaching influence on actual educational developments in Germany. The main points of the Plan (2) relevant to this study were :

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- (1) "Rahmenplan zur Umgestaltung und Vereinheitlichung des Allgemeinbildenden Öffentlichen Schulwesens", (Empfehlungen und Gutachten, Folge 3, 1959).
 - (2) Translated from "Schulrechtskunde" Hans Heckel, Paul Seipp, pages 45 and 46. Hermann Luchterhand Verlag, 1965.

Table 3

Pupils in Primary, General Secondary and Vocational and Technical Secondary
Education by Type of Institution, 1961-1965 and Forecast for 1970

Type of Educational Institution	1961	1962	1963	1964	1965	Forecast 1970
Volksschulen	5,279,331	5,375,563	5,437,040	5,487,692	5,569,157	6,220,100
Sonderschulen	146,267	154,466	163,904	175,384	187,660	247,900
Realschulen	444,539	471,085	495,250	528,376	570,239	751,000
Abendrealschulen	1,676	1,654	1,876	3,111	3,915	6,000
Gymnasien	852,575	851,500	863,451	895,041	963,249	1,271,300
Abendgymnasien	6,139	6,550	6,849	7,038	7,349	8,500
Kollegs	1,436	1,893	2,354	3,003	3,562	5,600
Berufsschulen	1,643,690	1,621,528	1,707,133	1,749,016	1,787,684	1,831,300
Berufsaufbauschulen	42,298	49,012	45,838	47,331	50,317	56,900
Berufsfachschulen	128,758	124,709	133,770	146,503	159,523	175,200
Fachschulen	92,219	94,012	87,452	83,717	83,890	89,300
Höhere Fachschulen	7,377	9,123	10,514	12,457	13,442	20,300
Ingenieurschulen	47,006	50,733	53,763	57,357	59,815	87,500
Total	8,693,311	8,811,828	9,009,194	9,196,026	9,459,802	10,770,900

Index Numbers:	1961 = 100					1965 = 100
Volksschulen	100	102	103	104	105	112
Sonderschulen	100	106	112	120	126	132
Realschulen	100	106	111	119	128	132
Abendrealschulen	100	99	112	186	234	153
Gymnasien	100	100	101	105	113	132
Abendgymnasien	100	107	112	115	120	116
Kollegs	100	132	164	209	248	157
Berufsschulen	100	99	104	106	109	102
Berufsaufbauschulen	100	116	108	112	119	113
Berufsfachschulen	100	97	104	114	124	110
Fachschulen	100	102	95	91	91	106
Höhere Fachschulen	100	124	143	169	182	151
Ingenieurschulen	100	108	114	122	127	146
Total	100	101	104	106	109	114

Notes

Volksschulen: excludes pupils in special classes, kindergarten classes and in aufbau classes.
 Sonderschulen: includes pupils in special classes in volksschulen.
 Realschulen: excludes pupils in kindergarten classes.
 Fachschulen: includes pupils in aufbauklassen in volksschulen.
 Höhere Fachschulen: includes only schools in which the majority of teaching staff require teacher training.
 classified as such according to definitions applied in the Länder at the given time period.

Source:

Ständige Konferenz der Kultusminister, DOK. No. 20.

Table 4
Enrolment Ratios for Certain Educational Institutions
1961 to 1965 and Forecast for 1970

Type of Institution	1961	1962	1963	1964	1965	1970
<u>Realschulen</u> (1)						
i. population aged 11 to 17	4,275,400	4,423,500	4,610,200	4,676,100	4,723,500	4,214,000
ii. of which: pupils	444,520	471,005	405,250	523,376	570,230	751,000
%	10.4	10.5	10.7	11.3	12.1	15.3
<u>Gymnasien</u> (2)						
i. population aged 11 to 20	6,615,000	6,642,500	6,644,100	6,666,100	6,922,000	7,250,000
ii. of which: pupils	652,575	651,500	663,451	675,041	663,240	1,271,300
%	12.2	12.6	13.0	13.4	13.2	17.5
<u>Berufsfachschulen, fachschulen, höhere Fachschulen</u> (3), <u>Ingenieurschulen</u>						
i. population aged 15 to 25	7,760,000	7,524,200	7,328,300	7,122,000	7,031,100	6,636,000
ii. of which: pupils	275,350	276,577	205,422	300,034	315,570	372,300
%	3.5	3.7	3.9	4.2	4.5	5.6

(1) excludes evening "real" schools; includes aufbau classes.

(2) excludes evening gymnasien and colleges.

(3) same institutions as included in table 3.

Source: Ständige Konferenz der Kultusminister, DOK. No. 20.

1. The Grundschule (basic school) comprises the first four school years in which all children are instructed together and have a common teaching programme, as has been the case up to the present time.
2. Most children will then enter the two-year (Förderstufe) observation and guidance stage. During the guidance and observation period, common schooling will remain the norm and most teaching will be carried out without streaming. Nevertheless, at the same time children will have opportunities to prove themselves in differentiated (streamed) courses of study that make greater demands of them. In this way the Förderstufe has the characteristics of a selection procedure.
3. After the aptitudes of individual pupils have become clear as a result of the guidance and observation stage, pupils enter one of the three types of secondary schools (Oberschulen) that follow on the Förderstufe.
 - (a) The main school (Hauptschule) provides three additional years of schooling (7-9) and will take the place of the current 7th and 8th or 7th to 9th years of schooling in the upper stage of the primary school (Volksschuloberstufe). The eventual introduction of a 10th year of schooling is to be aimed at. After successful completion of the 3rd year of study of the main school, pupils obtain the Main School Leaving Certificate and commence working life and vocational and technical training.
 - (b) The "real" school, including promotion classes of the main school, covers the 7th to 11th years of schooling and terminates with the Intermediate School-Leaving Certificate which gives right of access to intermediate level educational institutions and jobs ("Mittlere Reife").
 - (c) The gymnasium covers the 7th to 13th years of schooling and leads to the general Certificate of Maturity, giving access to all institutions of higher education. The gymnasium is divided into natural science and languages branches. The gymnasium should also provide a meaningful terminal point after the 11th year of schooling, with rights equivalent to those provided by the Intermediate School Leaving Certificate.
4. The secondary schools should not be hermetically sealed from one another, but rather there should be possibilities for transfers from one type to another. Provision should be made for able pupils from the main school to attend a "real" school after passing an admission examination and for "real" school pupils to move to a gymnasium school.

When this outline plan was published in 1959, its terms created quite a stir. Even today many of its features have not been put into practice, but what is perhaps more noteworthy is the fact that many of the then seemingly radical proposals are now accepted as a matter of course. Thus although the observation and guidance stage has only been tried out on a large-scale in Hesse, the principle of transfer from one type of secondary school to another is accepted and encouraged.

Linked with the increased possibility of transferring from one school type to another is the very rapid growth in promotion schools of various kinds in the number of institutions of the Zweiter Bildungsweg, for working people.

Attempts to develop the upper sections of the primary schools into main schools are going forward. Changes have been made in the curriculum of the gymnasiums, etc. It is not possible to trace all these steps back to their origins, but their implications have had, and will continue for a long time in the future to have an influence on teacher requirements.

As education is the responsibility of the Länder, reforms of one kind or another are often introduced in certain regions only. The Länder are not obliged to wait until there is 100 per cent agreement on proposed changes before going ahead on an experimental basis thus many of the features of various reform plans have been fully or partially introduced in some Länder or all of them.

There is a discernible trend, however, and the current thinking on education in Germany will now be looked at for clues as to further institutional change that will affect demand for teachers (1). Items will be taken one by one.

Vertical or Horizontal School Structure

This topic has already been raised in earlier paragraphs. It should be noted that whatever the future structure of the German educational system may turn out to be, for the forecasts presented in this study it will not be possible to take into consideration major structural changes. Nevertheless it would be difficult to understand some of the newer developments in the field of teacher training if the slow but steady movement to a horizontal, rather than vertical, school structure were not mentioned. Amongst all the criticisms aimed at a change in the school structure is that a new structure would require, in very large numbers, a quite different type of teacher, who at present does not exist. This point, which is of very importance when teacher requirements are talked about, will be discussed in the section dealing with teacher training.

The Basic (Grund) Schools and Main (Haupt) Schools (together Volksschulen)

There is general agreement that the standards of this part of the school system must be raised. Amongst the measures suggested to do this are :

- (i) to relate the age of entry to school to the actual state of development of the child.
- (ii) a foreign language should be taught in the main schools.

The Hamburg Agreement on the Standardisation of the German Educational System, October 1964, recommends that a foreign language should be taught from the 5th year of schooling onwards. Again some Länder have already achieved this and others will take some time to do so. Particularly in the Länder that did not have foreign language teaching in the upper sections of the Volksschulen, there is a shortage of qualified teachers. In 1965 about 15 per cent of pupils in grades 5 and above were learning English. In Berlin the figure was 73 per cent and in Hamburg 37 per cent. The need for language teachers will undoubtedly show a great increase in coming years.

- (iii) the development of the main school :

The transformation of the upper section of the primary school into a genuine secondary school offering a differentiated programme of instruction for pupils is bound to have considerable affect on the kind of teachers required and the type of training they receive. As well as the spread of foreign-language teaching in these schools, it is planned that all children, according to their ability, should take part in some specialised courses. A new subject matter is being introduced, "Arbeitslehre" (knowledge of the working world) which it is hoped will facilitate the transition from school to the working world. At present there is a lack of teachers for this new subject. Also teachers are not always sufficiently specialised to be subject teachers.

- (iv) the 9th and 10th years of schooling :

In 1969 the 9th year of schooling will be compulsory in Bavaria. Of course, this means more teachers and more resources of all kinds. In the long run there will perhaps be another

(1) The following description is based on the chapter entitled "Fragen der gegenwärtigen Bildungsdiskussion" ("Questions currently Discussed in the Field of Education") from "Bericht über den Stand der Massnahmen auf dem Gebiet der Bildungsplanung" (Report on Measures taken in the Field of Educational Planning). This report was presented to the German Parliament (Bundestag) in October 1967.

year of compulsory schooling. Some Länder are already holding some voluntary 10th year classes.

Transfers and Transitions from one School Type to Another

Without entering into great detail on the many transfers now possible from one type of school to another, it should be stated that the rate of entry from the basic school to the "real" schools and gymnasiums has grown very rapidly in recent years. More children enter these schools and efforts are made for those who do not enter at the normal entry point (after 4 or 6 years, as the case may be) to do so later without losing too much time. The effect of this on teacher requirements has mostly been to shift some of the demand for Volksschule teachers to a demand for "real" school and gymnasium school teachers. The consequence of this, as will be seen later, is an expected rise in the average number of pupils per class in gymnasium schools and heavy over-crowding, particularly in the lower grades of the gymnasium.

Preparatory Courses for Students of the Colleges of Engineering and Advanced Technical Schools

At present, students intending to study at a College of Engineering or an Advanced Technical School spend two years in practical training in industry before being admitted to one of these educational institutions. The latest developments in this area mean that there will be a far greater amount of theoretical and general education equivalent to that normally obtained at the upper secondary level for future students at the above-mentioned institutions. The new demand for future teachers created by this development will be considerable.

The Gymnasium

Very many plans for the reform of the German gymnasium have been put forward at one time or another. One set of suggestions concerns changes in the curriculum, and though these naturally affect teacher requirements it will not be possible to go into detail on these questions. The second set of suggestions concerns the organisation of the gymnasium and is essentially a part of the wider argument on whether the educational system should have a vertical or horizontal structure. Most plans involve closer links with the "real" and main schools, and given the present flood of entries to the gymnasium schools the principle of "real" school and main school teachers giving instruction in the lower grades of the gymnasium is finally being accepted by the gymnasiums. This will probably have very far-reaching consequences for the structure of the teaching profession as it is indeed the beginning of teachers being classified by the age-range of the children they teach (Stufen-Lehrer) rather than by the type of school in which they teach. Once again, this question will be raised in the section on teacher training.

New types of gymnasium schools have been opened in recent years emphasizing music, social studies and some offering only one foreign language. This too has increased the need for gymnasium teachers.

Thus, not only have quantitative changes taken place in the number of pupils attending the different types of educational institutions, but also internal change in the institutions themselves is taking place. The fastest growing institutions are those of the "Zweiter Bildungsweg", the schools for employed persons, and the gymnasiums. How has the teacher supply evolved in relationship to demand? It is now necessary to take a look at the main factors that influence the supply of teachers.

2. The Supply of Teachers, 1961 to 1965 and 1970

This section will be restricted to a purely quantitative analysis of the change in number of teachers in relation to the number of pupils and classes. All questions related to factors that affect recruitment of teachers and their employment conditions, etc., will be treated in later chapters.

Unfortunately, it will not be possible to find data from 1950 onwards, as comparable and complete figures only exist from 1961. Information will be given from 1961 to 1965 and forecasts for 1970.

(a) Method of Estimating Teacher Requirements

Before giving the actual details it is necessary to take a look at the method used in Germany for estimating future teacher requirements and for judging whether current conditions are satisfactory. In the "Bedarfsfeststellung 1961 bis 1970", (Assessment of Requirements 1961 to 1970) prepared by the Standing Conference of Ministers of Culture of the Länder of the Federal Republic, for the estimates of needs two sets of coefficients were used, the mean values (mittelwerte) and the target values (zielwerte) to define the relationships between pupils and classes (class size) and teachers and classes (classes per teacher) (1). The first set of coefficients are values which have already been achieved in some of the Länder, but the second set are targets considered pedagogically desirable. At the time of preparation of the first Assessment of Needs these target values for 1970 did not seem unrealistic (... aber auch als praktische Zielsetzung der Entwicklung bis 1970 nicht unrealistisch ...). These same values were used in the second Assessment of Needs, the results of which are being used in this study. Since these values are the key to the estimates they are given below.

Table 5 (x)

Pupil/Class Ratios and Teacher/Class Ratios Used in Estimating Teacher Requirements

Type of Institution	<u>Pupil/Class Ratio</u> (Klassenfrequenz)		<u>Teacher/Class Ratio</u> (Lehrer je Klasse)	
	mean value	target value	mean value	target value
Volksschulen	33	30	1.15	1.3
Sonderschulen	16	14	1.2	1.3
Realschulen	30	26	1.5	1.7
Gymnasien	24	20	1.7	1.9
Berufsschulen	22	20	0.5	0.6
Berufsfachschulen	22	20	1.6	1.8
Fachschulen	20	17	1.8	2.0
Ingenieurschulen	24	20	2.0	2.2

(x) Agreed upon in the 93rd plenary session of the Standing Conference of Ministers of Education and Cultural Affairs of the B.R.D., 1963

(1) See page 5, "Bedarfsfeststellung 1961 bis 1970", Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland.

Table 6
Pupils, Classes, Teachers in Primary and Secondary Education, 1961 to 1965 and estimates for 1970

Type of Institution	1961	1962	1963	1964	1965	1970 forecasts
Grund und Hauptschulen (Volksschulen)						
pupils	5,279,331	5,375,563	5,437,040	5,487,692	5,569,157	6,220,100
classes	143,589	147,666	150,808	155,049	158,792	179,340
teachers	148,069	152,906	157,485	163,633	168,135	195,900
pupils per class	37	36	36	35	35	35
teachers per class	1.03	1.04	1.04	1.06	1.06	1.09
Sonderschulen						
pupils	146,267	154,466	163,904	175,384	187,660	247,900
classes	7,263	7,897	8,521	9,330	10,144	13,460
teachers	7,280	7,830	8,587	9,567	10,592	14,490
pupils per class	20	19	19	19	19	18
teachers per class	1.00	0.99	1.01	1.03	1.04	1.08
Realschulen						
pupils	444,530	471,085	495,250	528,376	570,239	751,000
classes	13,689	14,322	15,293	16,264	17,533	23,550
teachers	19,306	20,546	21,454	22,564	24,166	32,300
pupils per class	33	32	32	33	33	32
teachers per class	1.41	1.41	1.40	1.39	1.38	1.37
Abendrealschulen						
pupils	1,676	1,654	1,876	3,111	3,915	6,000
classes	57	57	67	114	163	281
teachers	44	42	49	79	114	190
pupils per class	29	..	28	27	24	21
teachers per class	0.77	..	0.73	0.69	0.70	0.68
Gymnasien						
pupils	852,575	851,500	863,451	895,041	963,249	1,271,300
classes	30,933	31,389	31,946	32,844	34,791	43,650
teachers	48,899	49,741	50,838	52,497	53,807	66,230
pupils per class	28	27	27	27	28	29
teachers per class	1.58	1.58	1.59	1.60	1.55	1.52
Abendgymnasien						
pupils	6,139	6,550	6,849	7,038	7,349	8,500
classes (6)	..	..	332	342	369	434
teachers	..	..	361	366	386	450
pupils per class	..	..	21	21	20	20
teachers per class	..	..	1.09	1.07	1.05	1.04
Kollegs						
pupils (2)	1,436	1,893	2,354	3,003	3,562	5,600
classes (7)	..	..	106	130	151	227
teachers	..	..	255	317	378	580
pupils per class	..	..	19	20	20	20
teachers per class	..	..	2.41	2.44	2.50	2.56
Berufsschulen						
pupils	1,643,690	1,621,528	1,707,133	1,749,016	1,787,684	1,831,300
classes	71,331	70,164	72,295	74,030	75,857	81,700
teachers	25,400	25,890	25,900	26,487	26,904	29,360
pupils per class	23	23	24	24	24	22
teachers per class	0.36	0.37	0.36	0.36	0.36	0.36
Berufsaufbauschulen						
pupils	42,298	49,012	45,838	47,331	50,317	56,900
classes (6)	..	2,126	2,012	2,067	2,215	2,470
teachers	426	887	996	1,233	1,225	1,410
pupils per class	..	23	23	23	23	23
teachers per class	..	0.42	0.50	0.60	0.55	0.57
Berufsfachschulen						
pupils	28,758	124,709	133,770	146,503	159,523	175,200
classes	5,421	5,181	5,532	5,887	6,392	7,130
teachers	7,300	7,640	7,840	8,172	8,530	10,010
pupils per class	24	24	24	25	25	25
teachers per class	1.35	1.47	1.42	1.39	1.33	1.40
Fachschulen						
pupils	92,219	94,012	87,452	83,717	83,890	89,300
classes	4,316	4,632	4,456	4,470	4,404	4,610
teachers	6,500	6,970	6,700	6,548	6,431	7,040
pupils per class	20	20	20	19	19	19
teachers per class	1.51	1.50	1.50	1.46	1.46	1.53
Höhere Fachschulen						
pupils	7,377	9,123	10,514	12,457	13,442	20,300
classes	392	421	525	603	664	960
teachers	609	786	892	1,058	1,100	1,660
pupils per class	19	22	20	21	20	21
teachers per class	1.55	1.87	1.70	1.75	1.66	1.73
Ingenieurschulen						
pupils	47,006	50,713	53,763	57,357	59,815	87,500
classes (3)	1,508	1,587	1,679	1,780	1,961	2,680
teachers	3,002	3,210	3,431	3,861	4,170	5,870
pupils per class	27	28	28	28	26	28
teachers per class	1.99	2.02	2.04	2.17	2.13	2.19
TOTAL - All Institutions						
pupils	8,693,311	8,811,828	9,009,194	9,196,026	9,459,802	10,770,900
classes	278,499(4)	285,644(5)	293,572	302,910	313,436	360,492
teachers	266,835(5)	276,448(5)	284,788	296,382	305,938	365,490
pupils 1961 = 100	100	101.4	103.6	105.8	108.8	123.9
classes " "	100	102.6	105.4	108.8	112.5	129.4
teachers " "	100	103.6	106.7	111.1	114.7	137.0

NOTES:

- (1) Excluding Nordrhein-Westfalen
- (2) " Hessen
- (3) " Baden-Württemberg
- (4) " Abendgymnasien, Kollegs and Berufsaufbauschulen (about 2,100 classes)
- (5) " Abendgymnasien, Kollegs and Berufsaufbauschulen (about 410 classes)
- (6) " Bremen
- (7) " Saarland

* = estimates, .. = data unavailable

See notes to table 3 also.

Number of teachers includes all full-time teachers and part-time teachers in terms of full-time equivalents.

Sources: Ständige Konferenz der Kultusminister, DOK, No. 20.

These values may now be compared with the values actually prevailing in the schools between 1961 and 1965 and the likelihood of goals being achieved by 1970 considered.

The change in pupils' preferences for various forms of schooling has already been discussed. The growing desire to attend "real" and gymnasium schools and other schools giving access to higher education of both a technical and academic nature has been shown in the enrolment statistics presented in table 3. These enrolment figures will now be looked at along with the changes in pupil/class ratios and teacher/class ratios in the different types of school. The data are presented in table 6.

It is clear from a glance at this table that average class size and the amount of teaching time required for each class varies widely from one type of education to another. To take the three types of schools enrolling most pupils only, it can be seen that average class size varies from 35 pupils per class in elementary schools to 28 pupils per class in gymnasiums to 24 pupils per class in part-time vocational schools. The corresponding figures for teachers per class are 1.06 in elementary schools, 1.55 in gymnasiums and 0.36 in part-time vocational schools. (This is for 1965). The implications of these numbers may not be appreciated at first sight, so to illustrate their significance the teacher requirements for 1,000 pupils in each of these types of school will be calculated. The results obtained would be as follows :

Table 7

Teacher requirements for 1,000 pupils in three different types of school

- (a) actual values 1965
(b) mean values - Bedarfsfeststellung
(c) target values - "

	Pupil/class ratio			Teacher/Class ratio		
	(a)	(b)	(c)	(a)	(b)	(c)
elementary school	35	33	30	1.06	1.15	1.3
gymnasium	28	24	20	1.55	1.7	1.9
part-time vocational school	24	22	20	0.36	0.5	0.6
<u>Using above values,</u> <u>Requirements of 1,000 pupils</u> (1) in :	<u>Required classes</u>			<u>Required teachers</u>		
elementary schools	29	30	33	31	35	43
gymnasiums	36	42	50	56	71	95
part-time vocational schools	42	45	50	15	23	30

- (1) Pupils are allocated into classes by dividing 1,000 by the relevant pupil/class ratio. This ratio is then multiplied by the appropriate number of teachers required per class.

From the above it can be simply demonstrated that 1,000 pupils in the elementary schools under present conditions require 31 teachers, whereas 1,000 in the gymnasiums require 56 teachers and those in part-time vocational schools 15 teachers. Since the educational choice

of elementary school followed by part-time vocational school is in many instances the alternative to going to a gymnasium, the present trend away from elementary schools to the gymnasiums does not only imply a change in the type of teacher required (at present gymnasium teachers require lengthy academic training), but also far more teachers of the new type are required for the same number of pupils. It is in this light that it is interesting to compare the forecasts of pupil enrolments for 1970 made at different dates. (Only the principal school types will be given).

Table 8
Enrolments in 1970 According to Three Sets of Forecasts

	1962 Forecasts	1964 Forecasts	1966 Forecasts	Change 1966/1962 (1962 = 100)
Elementary Schools	6,547,800	6,573,600	6,220,100	95 %
"Real" Schools	627,700	694,000	751,000	120 %
Gymnasiums	954,300	1,055,400	1,271,300	133 %
Part-time vocational schools	1,925,900	2,001,000	1,888,200	98 %

What are the chances of the various school types realising the goals (mean values, target values) that have been set under the new conditions prevailing in the schools? The gymnasiums and the "real" schools would have to increase teaching staff by 1970, 32 per cent above the 1965 level, just to prevent a deterioration from taking place. This explains why future teacher supply figures are only compared with the mean values given earlier on. For the time being the chances of realising the target values except in isolated cases seem scarce (1). Again, before comparing the actual number of teachers with the estimated requirements based on the mean values, it should be noted that pupil/class ratios are averages for all classes in the schools of various types. This conceals a very wide dispersion of actual class size. It is a quite different matter to have as a target that :

- (1) No class of pupils shall exceed a certain size;
- (2) average class size will be a specified number.

Two examples of what this implies will be given, one taken from the elementary schools and one from the gymnasiums. Below is given the pupils in elementary schools in 1964 distributed by size of class in which they were enrolled. Although a great deal of analysis will not be made of the regional differences it is interesting to note the wide variations between the Länder.

-
- (1) It can be calculated from table 7 that achieving target values would involve the following increase in the number of teachers, above the 1965 level, for a given number of pupils :
- elementary schools : 39 per cent
 - gymnasiums : 70 per cent
 - part-time vocational schools : 100 per cent.

Table 9
Number of Classes by Number of Pupils in Volksschulen (1) 1964

	up to 20 pupils	21-25 pupils	26-30	31-35	36-40	41-45	46-50	51-55	56 and over	Total	Pupils Enrolled
Schleswig Holstein	581	1,044	1,793	1,978	1,130	397	68	6	-	7,057	214,471
Hamburg	77	339	983	1,482	976	168	10	-	-	4,035	130,418
Niedersachsen	945	2,831	5,347	5,991	4,160	2,095	601	168	49	22,187	717,445
Bremen	27	131	435	722	518	84	3	1	-	1,921	62,898
Nordrhein-Westfalen	530	2,078	5,771	9,748	10,631	7,814	3,505	1,036	380	41,433	1,526,913
Hessen	382	1,295	3,028	3,293	2,595	1,495	614	72	-	12,774	425,577
Rheinland Pfalz	190	429	1,073	1,892	2,136	2,179	1,463	607	271	10,040	392,005
Baden Württemberg	934	2,540	4,736	5,560	4,467	2,602	1,231	415	18	22,674	763,028
Bayern	269	1,369	4,120	6,467	6,708	4,904	2,506	703	110	27,156	994,497
Saarland	58	175	429	675	798	675	454	178	68	3,510	133,901
Berlin-West	73	291	1,212	1,538	720	66	1	-	-	3,901	122,911
Federal Republic - Total	4,066	12,521	28,927	39,146	34,899	22,479	10,456	3,186	1,067	156,748	5,484,064

Percentage Distribution

	up to 20 pupils	21-25 pupils	26-30	31-35	36-40	41-45	46-50	51-55	56 and over	Total
Schleswig Holstein	8.2	14.8	25.4	28.0	16.3	5.6	1.0	0.1	-	100.0
Hamburg	1.9	8.4	24.4	36.7	24.2	4.2	0.2	-	-	100.0
Niedersachsen	4.3	12.8	24.1	27.0	18.7	9.4	2.7	0.8	0.2	100.0
Bremen	1.4	6.8	22.6	37.6	27.0	4.4	0.2	0.1	-	100.0
Nordrhein-Westfalen	1.3	5.0	13.9	23.5	25.6	18.8	8.4	2.5	0.9	100.0
Hessen	3.0	10.1	23.7	25.8	20.3	11.7	4.8	0.6	-	100.0
Rheinland Pfalz	1.9	4.3	10.7	16.9	21.3	21.7	14.6	6.0	2.7	100.0
Baden Württemberg	4.1	11.2	20.9	24.5	19.7	11.5	5.4	1.8	0.8	100.0
Bayern	1.0	5.0	15.2	23.8	24.7	18.1	9.2	2.6	0.4	100.0
Saarland	1.7	5.0	12.2	19.2	22.7	19.2	12.9	5.1	1.9	100.0
Berlin-West	1.9	7.5	31.1	39.4	18.5	1.7	-	-	-	100.0
Federal Republic - Total	2.6	8.0	18.5	25.0	22.3	14.3	6.7	2.0	0.7	100.0

(1) Excludes special classes in elementary schools and promotion classes (mittelschulzug).

Source: Statistisches Bundesamt (A 10/I - 1964)

If any class containing more than 33 pupils were to be considered overcrowded, then amongst the 156,748 elementary classes of the elementary schools an estimated 87,745 or 56 per cent came within that category. There were 37,188 or 24 per cent classes with more than 40 children in them. About 3,024,000 pupils or 65 per cent were in classes with more than 35 children per class. Of these about 1.7 million were in classes of more than 40 pupils. These figures are given for two reasons. The first is that the current flood of entries to the gymnasiums and "real" schools has to some extent turned attention away from the elementary school, when in fact there is still a great deal to be achieved before the mean values, let alone the target values, are a fact in the elementary schools. The second reason is to point out that the use of an average pupil/class ratio leads to the tolerance of a large number of overcrowded classes if there happens to be a large number of classes with few children in them. In Germany where many primary schools are still very small there do happen to be quite a number of classes in which there are relatively few pupils (see table 9). This explains why, though the average number of pupils per class is 35, about 65 per cent of all pupils are in classes with more than 35 pupils.

The next illustration of how average pupil/class ratios conceal wide differences comes from gymnasium schools. Here the dispersion concerns pupils distributed by year of study. The data show heavy overcrowding in the earlier years of study with highly satisfactory pupil/class ratios in the final grades.

In the case of gymnasium schools in 1964, the average pupil/class ratio was 27. This average comes from having very small classes in the final years of study and classes even larger than those of the elementary schools in the first year of study, though class size diminishes each successive year of study. The mean value for gymnasiums is 24 pupils per class, but about 70 per cent of all pupils were in classes with 26 or more pupils in them. The overcrowding of the lower grades is a particularly serious matter as many of the newest entries are, no doubt, pupils from social backgrounds in which there has been no previous inclination for gymnasium-type education. Can these pupils really be helped to make the necessary adjustments to their new schools if classes are so large? Once again, it is seen that using an average measure conceals differences which are very significant. These figures were for 1964. By 1967, schools were reporting record intakes for the first gymnasium grade (fifth year of study) and it is this that has led some members of the German Gymnasium School Teachers' Association (Der Philologen Verband) to talk of the gymnasiums being in peril (1). Thus, at the present it looks as though an increase in average class size in the gymnasium will be unavoidable in the next few years, let alone any reduction.

Bearing in mind the limitations of using average pupil/class ratios and average teacher/ratios class, the available teachers may be compared with the estimates of requirements using the mean values adopted by the Conference of Ministers of Education. Institutions employing very few teachers such as evening grammar schools are not considered there.

(1) The Philologen Verband of North-Rhine-Westphalia carried out a survey of gymnasiums in that Land covering the school year 1966/67. It estimated that the shortage of qualified teachers had doubled since 1962/63.

Table 10
Gymnasiums 1964 - Pupil/Class Ratios by Year of Study

Year of study	Number of classes distributed by number of pupils per class								Pupils by year of study	Pupil/ class ratio
	Up to 20 pupils	21-25	26-30	31-35	36-40	41-45	46-50	Over 50	Total	
5th year	94	207	498	992	1,181	779	169	32	3,952	141,178
6th year	99	254	714	1,110	1,002	426	60	10	3,675	123,631
7th year	199	444	946	1,038	1,890	329	59	8	3,913	125,339
8th year	310	777	1,132	1,020	594	122	29	4	3,988	117,624
9th year	507	926	1,170	850	367	87	11	-	3,918	108,563
10th year	785	1,051	1,055	621	176	28	-	-	3,716	95,480
11th year	1,645	1,021	509	163	15	3	-	-	3,356	70,310
12th year	2,130	730	208	34	5	-	-	-	3,107	56,964
13th year	2,344	540	100	13	4	-	-	-	3,001	50,493
Total	8,113	5,950	6,332	5,841	4,234	1,774	328	54	32,626	889,582
										27

	% distribution										% Pupils	Classes
5th year	2.4	5.2	12.6	25.1	29.9	19.7	4.3	0.8	100.0	15.9	12.1	
6th year	2.7	6.9	19.4	30.2	27.3	11.6	1.6	0.3	100.0	13.9	11.3	
7th year	5.1	11.3	24.2	26.5	22.7	8.4	1.5	0.2	100.0	14.1	12.0	
8th year	7.8	19.5	28.4	25.6	14.9	3.1	0.7	0.1	100.0	13.2	12.2	
9th year	12.9	23.6	29.9	21.7	9.4	2.2	0.3	-	100.0	12.2	12.0	
10th year	21.1	28.3	28.4	16.7	4.7	0.8	-	-	100.0	10.7	11.4	
11th year	49.1	30.4	15.2	4.9	0.4	0.1	-	-	100.0	7.9	10.3	
12th year	68.6	23.5	6.7	1.1	0.2	-	-	-	100.0	6.4	9.5	
13th year	78.1	18.0	3.3	0.4	0.1	-	-	-	100.0	5.7	9.2	
										100.0	100.0	

Source: Statistisches Bundesamt (A 10/1 - 1964)

Table 11

Estimated Class and Teacher Requirements Compared with Actual Number 1961 to 1965 and Forecasts
for 1970

Type of Institution	Year	C L A S S E S				T E A C H E R S			
		(a) Estimated Require- ments	(b) Number Available	Difference (b) - (a)	% (b) of (a)	(a) Estimated Require- ments	(b) Number Available	Difference (b) - (a)	% (b) of (a)
Grund und Hauptschulen (Volksschulen) Basic and Main Schools	1961	159,980	143,589	- 16,391	89.8	183,977	148,069	- 35,908	80.5
	1962	162,896	147,668	- 15,228	90.7	187,330	152,906	- 34,424	81.6
	1963	164,759	150,808	- 13,951	91.5	189,473	157,485	- 31,988	83.1
	1964	166,294	155,049	- 11,245	93.2	191,238	163,633	- 27,605	85.6
	1965	168,762	158,792	- 9,970	94.1	194,076	168,135	- 25,941	86.6
	1970	188,490	179,340	- 9,150	95.1	216,760	195,900	- 20,860	90.4
Sonderschulen Special Schools	1961	9,142	7,263	- 1,879	79.4	10,970	7,280	- 3,690	66.4
	1962	9,654	7,897	- 1,757	81.8	11,585	7,830	- 3,755	67.6
	1963	10,244	8,521	- 1,723	83.2	12,293	8,587	- 3,706	69.9
	1964	10,962	9,330	- 1,632	85.1	13,154	9,567	- 3,587	72.7
	1965	11,729	10,144	- 1,585	86.5	14,075	10,592	- 3,483	75.3
	1970	15,490	13,460	- 2,030	86.9	18,590	14,490	- 4,100	77.9
Realschulen Intermediate Schools	1961	14,818	13,689	- 1,129	92.4	22,227	19,306	- 2,921	86.9
	1962	15,703	14,522	- 1,181	92.5	23,555	20,546	- 3,009	87.2
	1963	16,508	15,293	- 1,215	92.6	24,762	21,454	- 3,308	86.6
	1964	17,613	16,264	- 1,349	92.3	26,420	22,564	- 3,856	85.4
	1965	19,008	17,533	- 1,475	92.2	28,512	24,166	- 4,346	84.8
	1970	25,030	23,550	- 1,480	94.1	37,550	32,300	- 5,250	86.0
Gymnasien Secondary Grammar Schools	1961	35,524	30,933	- 4,591	87.1	60,391	48,899	- 11,492	81.0
	1962	35,479	31,389	- 4,090	88.5	60,314	49,741	- 10,573	82.5
	1963	35,977	31,946	- 4,031	88.8	61,161	50,838	- 10,323	83.1
	1964	37,293	32,844	- 4,449	88.1	63,398	52,497	- 10,901	82.8
	1965	40,135	34,791	- 5,344	86.7	68,230	53,807	- 14,423	78.9
	1970	52,970	43,650	- 9,320	82.4	90,050	66,230	- 23,820	73.5
Berufsschulen Part-time Vocational Schools	1961	74,713	71,331	- 3,382	95.5	37,357	25,400	- 11,957	68.0
	1962	73,706	70,164	- 3,542	95.2	36,853	25,890	- 10,963	70.3
	1963	77,597	72,295	- 5,302	93.2	38,799	25,900	- 12,899	66.8
	1964	79,501	74,030	- 5,471	93.1	39,751	26,487	- 13,264	66.6
	1965	81,258	75,857	- 5,401	93.4	40,629	26,904	- 13,725	66.2
	1970	83,240	81,700	- 1,540	98.1	41,620	29,360	- 12,260	70.5
Berufsfach- schulen Full-time Vocational Schools	1961	5,853	5,421	- 432	92.6	9,365	7,300	- 2,065	77.9
	1962	5,669	5,181	- 488	91.4	9,070	7,640	- 1,430	84.2
	1963	6,080	5,532	- 548	91.0	9,728	7,840	- 1,888	80.6
	1964	6,659	5,887	- 772	88.4	10,654	8,172	- 2,482	76.7
	1965	7,251	6,392	- 859	88.2	11,602	8,530	- 3,072	73.5
	1970	7,960	7,130	- 830	89.6	12,740	10,010	- 2,730	78.6
Fachschulen ⁽¹⁾ Technical Schools	1961	4,980	4,708	- 272	94.5	8,964	7,109	- 1,855	79.3
	1962	5,157	5,053	- 104	98.0	9,283	7,756	- 1,527	83.6
	1963	4,898	4,981	+ 83	101.7	8,816	7,592	- 1,224	86.1
	1964	4,809	5,073	+ 264	105.5	8,656	7,606	- 1,050	87.9
	1965	4,867	5,068	+ 201	104.1	8,761	7,531	- 1,230	86.0
	1970	5,480	5,570	+ 90	101.6	9,860	8,700	- 1,160	88.2
Ingenieur- schulen Colleges of Engineering	1961	1,716	1,508	- 208	87.9	3,432	2,604	- 828	75.9
	1962	1,841	1,587	- 254	86.2	3,681	2,774	- 907	75.4
	1963	1,956	1,679	- 277	85.8	3,912	2,944	- 968	75.3
	1964	2,064	1,780	- 284	86.2	4,128	3,319	- 809	80.4
	1965	2,160	1,961	- 199	90.8	4,320	3,620	- 700	83.8
	1970	3,130	2,680	- 450	85.6	6,260	5,070	- 1,190	81.0

See notes to table 3

(1) Including Advanced Technical Schools

Method of compilation:

The actual and forecast numbers of pupils in each type of school are divided by the mean values adopted by the Conference of Ministers of Education, to obtain:

- (a) the required number of classes
- (b) the required number of teachers

Source: Numbers of classes and teachers :
Ständige Konferenz der Kultusminister, DOK. No. 20.

(b) Teacher shortages

It seems clear that although there has been a good degree of improvement, or at least no deterioration, in the relative availability of teachers for all school types (except for the gymnasiums where from 1964 onwards the overall shortage of teachers has become worse), by 1970 the teacher requirements as calculated according to the mean values of the Conference of Ministers of Education will not be filled in any of the principal types of educational institution. When it is remembered that the mean values represent the "feasible" coefficients used for calculating requirements and that requirements would be very much higher if calculations were based on the target values, the gravity of the situation may be appreciated. Of course, severe shortages cannot be relieved overnight and substantially increasing the stock of teachers is a long term matter.

Table 11 shows the actual number of classes and teachers from 1961 to 1965 and forecasts for 1970, as well as the number that would be required to satisfy the conditions as specified in the mean values described earlier. The difference between the actual number and the requirements gives the deficit or surplus in classes and teachers. A surplus would indicate a higher fulfilment of the norms and a deficit an insufficient fulfilment. Only one "surplus" can be reported, and that is in class size in the technical schools. Since 1963, the average size of classes in technical schools has reached the mean value. Nevertheless, even for these schools there is a shortage of teachers, indicating that fewer teachers are being used per class than prescribed in the mean value.

In all other cases but classes in the technical schools, there have been neither sufficient classes nor sufficient teachers. Of course, as long as there are not enough teachers, average class size will probably remain large. It is doubtful that average teachers per class will rise to any great extent as long as average class size is reduced (unless teachers work fewer hours weekly, in which case more teachers are required to cope with the same volume of work). In spite of the shortages, however, most school types will have a smaller teacher shortage by 1970 in relative terms (considering the proportion of total requirements that will be met) and half of them will have an absolute decline in the shortage of teachers, nevertheless the total shortage will increase from 67,000 to 71,000 teachers between 1965 and 1970. In the next few years the gymnasiums will face the most serious problem as far as teacher availability is concerned. There will be an estimated shortage of nearly 24,000 gymnasium teachers, representing more than 26 per cent of total requirements in gymnasium schools. Below, the shortages in 1965 are compared with the expected shortages in 1970.

Table 12

Teacher Situation Expected in 1970 Relative to 1965

School-type	Improvement		Deterioration		Shortage 1965	Expected Shortage 1970	1970 Shortage as % total requirements
	Abs.	Rel.	Abs.	Rel.			
Volksschulen	x	x			25,941	20,860	9.6
Sonderschulen		x	x		3,483	4,100	22.1
Realschulen		x	x		4,346	5,250	14.0
Gymnasien			x	x	14,423	23,820	26.5
Berufsschulen	x	x			13,725	12,260	29.5
Berufsfachschulen	x	x			3,072	2,730	21.4
Fachschulen (1)	x	x			1,230	1,160	11.8
Ingenieursschulen			x	x	700	1,190	19.0
					66,920	71,370	

(1) Including höhere fachschulen. Abs. = Absolute; Rel. = Relative.

Looking at these data on teacher shortages it is not difficult to understand the concern over the gymnasiums that is being felt today. How will it be possible to cope with the throngs of new pupils who will enter the schools each year? Other institutions that will be under heavy pressure in the coming years are the colleges of engineering and the "real" schools. Although the part-time vocational schools will have only 70 per cent of their teacher requirements filled by 1970, this represents an improvement on the previous situation where only 66 per cent of requirements were met.

Before going on to talk about changes in the supply of teachers, a few lines should be devoted to shortages of teachers in specific subjects.

(c) Shortages of teachers by subject of study

As in all other countries, in Germany it is easier to obtain some kinds of teachers than others. It is rather difficult to ascertain, in fact, how large (or small) specific teacher shortages are. There are various indicators that may be used such as the number of hours taught overtime by different subject teachers, the number of lessons that have to be cancelled in various subjects because teachers cannot be found to take the lessons, etc. The trouble with such indicators is that it is not easy to gather comprehensive data on the topics in question. Although a general idea can be obtained of relative scarcities of teachers, it is seldom possible to say, for example, how much greater is the scarcity of gymnastics teachers than the scarcity of language teachers. This question is, however, of vital importance and some attempt has been made to find out which teachers are scarcest.

In conjunction with the Second Assessment of Needs (from which most of the data of this study are drawn) each of the Länder (excluding Bremen) reported on the difficulty or ease with which vacant posts for teachers of various subjects were filled. For each subject taught in the "real" schools and the gymnasium, the Länder reported either "serious difficulty", "difficulty", or "no difficulty", in filling posts. The answer of each Land was given a weight : the proportion of pupils in "real" schools and gymnasiums in that particular Land out of all pupils in the country in these schools in 1965 and estimated 1970. The total of the weights added up to 1,000 when the results of replies "serious difficulty" and "difficulty" were added together, the subject coming closest to 1,000 was assumed to be the subject for which teacher recruitment was most difficult between 1961 and 1966. Länder also gave their appreciation of future recruitment prospects by subjects up to 1970. The results of this enquiry are given below for both "real" schools and gymnasiums (volks-schulen teachers are class teachers, not subject teachers, and theoretically teach all subjects). Given the enormous increase in teacher requirements for both these types of schools, it is not to be wondered at that expectations are that recruitment, with some very minor exceptions, will be more difficult in the period up to 1970 in all subjects in the "real" schools. In the light of the estimated teacher shortages, described earlier for the gymnasiums by 1970, the assessment of the Länder for recruitment to these schools seems somewhat optimistic : in quite a few subjects the schools expect that teaching posts will be filled more easily in 1970 than they are today. The tables are presented below and are followed by comments on their results.

Mathematics and science teachers are in greatest scarcity both in "real" schools and in gymnasiums, and this scarcity will not be relieved by 1970. The acute shortage of mathematics and science teachers has been the subject of a great deal of anxiety for some years already. Even before the heavy rise in the number of entrants to the gymnasiums could be foreseen, it was feared that the need for mathematics and science teachers by 1970 would be very far from being met. In March 1964 the Minister of Education for Baden-Württemberg declared in the Land Parliament "The curriculum of the gymnasium provides for 12.8 lessons

Table 12
Relative Scarcity of Different Subject Teachers

I. Real Schools

Subject	Time period	Vacant posts were filled with or will be filled with:						
		"Serious difficulty"		"Difficulty"		"Total-difficulty"		
		In these Länder	Weight	In these Länder	Weight	Total Weight	RANK	
							61-66	67-70
German	1961-1966	BA	0.137	BW, HE, NS, RP, SA	0.449	0.586	10	
	1967-1970	BA, BW	0.311	HE, NS, NW, RP, SA	0.592	0.903		3
History	1961-1966	-	-	BA	0.137	0.137	16	
	1967-1970	BA	0.150	BW	0.272	0.422		13
Geography	1961-1966	-	-	BA, BW	0.260	0.260	14	
	1967-1970	BA, BW	0.311	NW	0.272	0.583		12
Evan. Religion ⁽¹⁾	1961-1966	NS, NW	0.456	BW, BA, HA, RP, SA, SH	0.399	0.855	4	
	1967-1970	BA, BW, NS, NW	0.738	HA, SA, SH	0.092	0.830		8
Rom. Cath. Rel. ⁽¹⁾	1961-1966	NS, NW	0.456	BW, BA, RP, SA	0.303	0.759	8	
	1967-1970	BA, BW, NS, NW	0.738	RP	0.038	0.776		9
English	1961-1966	BA, BW	0.260	HE, NS, RP	0.314	0.574	11	
	1967-1970	BA, BW	0.311	HE, NS, NW, RP	0.577	0.888		4
French	1961-1966	-	-	HE, NS, SA	0.295	0.295	13	
	1967-1970	-	-	HE, NS, NW, SA, SH	0.614	0.614		11
Mathematics	1961-1966	BW, HE, NS, NW, RP, SA, SH	0.809	BA, HA	0.159	0.968	1	
	1967-1970	BW, BA, NS, NW, RP, SH	0.836	HA, HE, SA	0.144	0.980		1
Physics	1961-1966	BW, HE, NS, NW, RP	0.723	BA, HA	0.159	0.882	3	
	1967-1970	BW, BA, NS, NW, RP, SH	0.836	HA, HE, SA	0.144	0.980		1
Chemistry	1961-1966	BW, BA, NS, NW, RP	0.747	HA, HE	0.135	0.882	3	
	1967-1970	BW, BA, NS, NW, RP, SH	0.836	HA, HE, SA	0.144	0.980		1
Biology	1961-1966	BA, NS, NW	0.593	BW, HE, RP, SA, SH	0.353	0.946	2	
	1967-1970	BW, BA, NS, NW, RP	0.776	HE, SA, SH	0.187	0.963		2
Social Studies	1961-1966	-	-	BW	0.123	0.123	17	
	1967-1970	BW	0.161	-	-	0.161		16
Music	1961-1966	NS, NW, RP, SH	0.561	BW, BA, HA	0.282	0.843	5	
	1967-1970	BW, BA, NS, NW, RP, SH	0.836	HA, SA	0.032	0.868		5
Drawing	1961-1966	BA, NS, NW, RP, SH	0.698	BW	0.123	0.821	7	
	1967-1970	BW, BA, NS, NW, RP, SH	0.836	-	-	0.836		7
Handicrafts, etc.	1961-1966	BA, NW, RP	0.454	BW, NS, SH	0.367	0.821	7	
	1967-1970	BW, BA, NW, RP, SH	0.681	NS	0.155	0.836		7
Needlework	1961-1966	-	-	BW, NS, NW, RP, SA, SH	0.696	0.696	9	
	1967-1970	BW, NW	0.433	NS, RP, SA, SH	0.268	0.701		10
Shorthand ⁽¹⁾	1961-1966	-	-	NS	0.170	0.170	15	
	1967-1970	BA	0.150	NS, SA	0.170	0.320		15
Typing ⁽¹⁾	1961-1966	-	-	NS	0.170	0.170	15	
	1967-1970	BA	0.150	NS, SA	0.170	0.320		15
Domestic Science	1961-1966	NW, SH	0.360	BW, BA, NS, RP, SA	0.473	0.833	6	
	1967-1970	BW, BA, NS, NW, SH	0.643	NS, RP, SA	0.208	0.851		6
Sports	1961-1966	-	-	BA, NS, RP, SA	0.350	0.350	12	
	1967-1970	BA, NS	0.305	RP, SA, SH	0.113	0.418		14

Notes: Excludes Bremen entirely
(1) excluding Berlin

Land	Weights 1961-1966	Weights 1967-1970
BW = Baden Württemberg	0.123	0.161
BA = Bavaria	0.137	0.150
BE = Berlin	0.032	0.020
BR = Bremen	-	-
HA = Hamburg	0.022	0.017
HE = Hessen	0.113	0.112
NS = Lower Saxony	0.170	0.155
NW = North-Rhine-Westphalia	0.286	0.272
RP = Rhineland Palatinate	0.031	0.038
SA = Saarland	0.012	0.015
SH = Schleswig Holstein	0.074	0.060
	1.000	1.000

Source: Ständige Konferenz der Kultusminister, DOK. No. 20.

Table 14
Relative Scarcity of Different Subject Teachers

II. Gymnasiums

Subject	Time period	Vacant posts were filled with or will be filled with:						
		"Serious difficulty"		"Difficulty"		"Total-difficulty"		
		In these Länder	Weight	In these Länder	Weight	Total Weight	RANK	
							61-66	67-70
German	1961-1966	BW, BA, NS	0.437	HA, NW, RP, SA, SH	0.441	0.878	5	
	1967-1970	BW, BA, HA, NW	0.656	NS, RP, SH	0.201	0.857		4
History	1961-1966	NS	0.107	HA, NW, SH	0.347	0.454	10	
	1967-1970	HA, NW	0.327	NS, RP, SH	0.201	0.528		11
Geography	1961-1966	NS	0.107	HA, NW, RP, SA, SH	0.441	0.548	9	
	1967-1970	HA, NW	0.327	BW, NS, RP, SH	0.356	0.683		8
Evangelical Rel.	1961-1966	BA, HA, NS, NW, RP, SH	0.692	BW, HE	0.259	0.951	3	
	1967-1970	BW, HA, HE, NS, NW, RP, SH	0.779	BA	0.174	0.953		2
Rom. Cath. Rel.	1961-1966	NS	0.107	BW, BA, HE, NW, RP, SA	0.802	0.909	4	
	1967-1970	BW, NS, NW	0.544	BA, HE, RP	0.339	0.883		3
English	1961-1966	BW, NS, NW	0.554	BA, HA, RP, SA, SH	0.324	0.878	5	
	1967-1970	BW, HA, NW	0.482	BA, NS, RP, SH	0.375	0.857		4
French	1961-1966	NS, NW	0.390	BW, BA, HA, HE, RP, SA, SH	0.583	0.973	2	
	1967-1970	BW, HA, NS, NW	0.574	BA, RP, SH	0.283	0.857		4
Russian	1961-1966	-	-	HA, SH	0.064	0.064	12	
	1967-1970	-	-	HA, NS, SH	0.162	0.162		12
Latin	1961-1966	NS	0.107	BA, NW, SA, SH	0.509	0.616	8	
	1967-1970	NW	0.297	BW, BA, HA, NS, SH	0.491	0.788		6
Greek	1961-1966	-	-	NS	0.107	0.107	11	
	1967-1970	-	-	HA, NS	0.122	0.122		13
Mathematics	1961-1966	BW, BA, HA, HE, NS, NW, RP, SH	0.951	BE, SA	0.049	1.000	1	
	1967-1970	BW, BA, BE, HA, HE, NS, NW, RP, SH	0.973	-	-	0.973		1
Physics	1961-1966	BA, HA, HE, NS, NW, RP, SH	0.787	BW, BE, SA	0.213	1.000	1	
	1967-1970	BW, BA, BE, HA, HE, NS, NW, RP, SH	0.973	-	-	0.973		1
Chemistry	1961-1966	HA, NS, NW, RP, SH	0.526	BW, HE, SA	0.281	0.807	6	
	1967-1970	BW, HA, HE, NS, NW, RP, SH	0.779	BE	0.020	0.799		5
Biology	1961-1966	HA, HE, NS, NW, RP, SA, SH	0.643	BW	0.164	0.807	6	
	1967-1970	BW, HA, HE, NS, NW, RP, SH	0.779	-	-	0.799		7
Music	1961-1966	BA, HE, NS, RP, SA, SH	0.500	BW, HA, NW	0.473	0.973	2	
	1967-1970	BW, HA, HE, NS, NW, RP, SH	0.779	BA	0.174	0.953		2
Art	1961-1966	HA, HE, NS, NW, SA, SH	0.571	BW, RP	0.236	0.807	6	
	1967-1970	BW, HA, NS, NW, RP, SH	0.683	HE	0.096	0.779		7
Needlework	1961-1966	HA, RP, SH	0.136	BA, NS, NW	0.556	0.692	7	
	1967-1970	HA, NW, RP, SH	0.436	BW, BA, NS	0.421	0.857		4
Sport-boys	1961-1966	BW, HE, NS, NW, RP, SH	0.759	BA, HA, SA	0.214	0.973	2	
	1967-1970	BW, HA, HE, NS, SH	0.413	BA, RP	0.243	0.656		10
Sport-girls	1961-1966	BW, BA, HA, HE, NS, NW, RP, SH	0.951	BE, SA	0.049	1.000	1	
	1967-1970	BW, BA, HA, HE, NS, RP, SH	0.656	BE	0.020	0.676		9

Notes: Excludes Bremen entirely

Land	Weights 1961-1966	Weights 1967-1970
BW = Baden Württemberg	. 164	. 155
BA = Bavaria	. 166	. 174
BE = Berlin	. 027	. 020
HA = Hamburg	. 026	. 030
HE = Hessen	. 095	. 096
NS = Lower Saxony	. 107	. 092
NW = North-Rhine-Westphalia	. 283	. 297
RP = Rhineland Palatinate	. 072	. 069
SA = Saarland	. 022	. 026
SH = Schleswig Holstein	. 038	. 040
	1.000	0.999

Sources: Ständige Konferenz der Kultusminister, DOK. No. 20.

out of every 100 to be devoted to mathematics; only 7.2 trained teachers out of every 100 are, on the other hand, qualified to teach mathematics". As will be seen later on, the percentage of mathematics and science graduates amongst the total number of newly qualified gymnasium teachers is not increasing, so that given that the present needs are not met, the situation will become relatively worse. The Education Council (Bildungsrat) has published a special report on measures that can be taken to alleviate the shortage of mathematics and science teachers.

Other subjects for which the teacher shortage has been particularly acute are religious education and handicrafts and domestic science and related subjects in the "real" schools. In the case of these subjects temporary measures for relief are not too difficult. Ministers of religion have been used for religious instruction, and special short forms of training for teachers of handicrafts and related subjects have been introduced in many Länder. By 1970, most Länder expect that teachers of German and foreign languages will be more difficult to recruit. It remains to be seen whether this fear is justified or not.

In the gymnasiums, there has been a very great shortage of gymnastics and sports teachers, particularly for girls. Recruitment has been rather difficult for music teachers and teachers for religious instruction. As, in the case of the "real" schools, although language teachers have not been quite as scarce as some others, between the present time and 1970 an acute shortage is expected.

It must be concluded from the data presented in this chapter that by 1970 of all the school types, the gymnasiums will face the most serious shortage of teachers, and that this shortage will be felt most acutely in the subject mathematics and in other science subjects. In view of the importance of these subjects, all sorts of relief measures will have to be taken, but whereas it may be quite satisfactory to have religious instruction given by the local minister of religion, the same cannot be said for German teachers giving lessons in mathematics :

(d) Teacher Surpluses

In some subjects, in some of the Länder, there were more teachers available than required between 1961 and 1966, even though there has been an overall shortage of teachers. These subjects can also be classified in the same way as was done for the subjects in which there was a shortage of teachers. An indicator for the magnitude of surpluses was constructed by the same method as outlined for the indicators of shortages. The same weights were used as given in the tables for teacher shortages. For "real" schools and gymnasiums the results obtained are given below. For the sake of brevity only the subjects in which a surplus was recorded are listed. Once both relative surpluses and deficits are known, the net balance can be calculated. In fact in the gymnasiums there was a relative surplus in only two subjects, when the situation throughout the Federal Republic was considered, and one of these subjects is not a major subject in the school curriculum. In the case of "real" schools, there is no subject for which there was a net surplus of teachers between 1961 and 1966, although for a few it can be said that there was almost a balance between the number of teachers seeking posts and the number of available posts, even though there was some regional imbalance. Thus, the only type of teacher in schools providing general education for which there was a considerable surplus between 1961 and 1966 was teachers of Greek in the gymnasiums. The information regarding net teacher shortages or surpluses is given below :

Table 15

Relative Teacher Surpluses between 1961 and 1966

Subjects	Real Schools		Gymnasiums	
	Considerable surplus	Slight surplus	Considerable surplus	Slight surplus
	Länder weights	Länder weights	Länder weights	Länder weights
Geography	SA, SH (.086)		BE (.027)	
English	SA, SH (.086)		BE (.027)	
French		BW, BE, SH (.229)	BE (.027)	
History		BW (.123)	BW, BE (.191)	HE (.095)
Drawing, Art		SA (.012)	BA, BE (.193)	
Shorthand		BW (.123)		
Handicrafts, etc.	SA (.012)			
Greek			BW, NW, SH (.485)	HA, HE, SA (.143)
Latin				HA (.026)
Chemistry			BA (up to 1964)	BA (from 1965) (.166)
Biology			BA " " "	BA (from 1965) (.166)
German			BE (.027)	HE (.095)
Russian				NW (.283)

Method of compilation and source : same as for Tables 13 and 14.

The picture of teacher shortages by subject would not be complete without a consideration of technical and vocational education, for here, too, shortages are not evenly spread over all subjects, but rather are concentrated more heavily in some fields than others. The wide variety of fields covered by technical and vocational education precludes the compilation of indicators of shortages as used for gymnasiums and "real" schools. Nevertheless, it is possible to give an idea of the subjects for which the Länder experienced greatest difficulty in teacher recruitment. Once again, this information is summarised in tabular form and it is presented below.

Without a good deal of information on the economic structure and occupational distribution within the Länder, it is not easy to judge the severity of, or absence of, teacher shortages for the different branches and levels of technical and vocational education. Nevertheless, it is clear that it is in the technical and engineering fields that the shortage has been most acutely felt, and it is also in these fields that the shortages will continue to be felt most strongly in the next few years. Even in the case of civil engineering where Bavaria and the Rhineland-Palatinate report a slight surplus between 1961 and 1966,

Table 16

Adjusted Table of Indicators of Teacher Shortages Between 1961 and 1966

Subject	1961-1966 Indicator of shortage	1961-1966 Indicator of surplus	Net Balance	Short- age Rank
<u>GYMNASIUMS</u>				
German	0.878	0.122	0.756	7
History	0.454	0.286	0.168	13
Geography	0.548	0.027	0.521	12
Evan. Rel.	0.951	-	0.951	3
Rom. Cath. Rel.	0.909	-	0.909	5
English	0.878	0.027	0.851	6
French	0.973	0.027	0.946	4
Russian	0.064	0.283	(0.219)	(14)
Latin	0.616	0.026	0.590	11
Greek	0.107	0.628	(0.521)	(15)
Mathematics	1.000	-	1.000	1
Physics	1.000	-	1.000	1
Chemistry	0.807	0.166	0.641	9
Biology	0.807	0.166	0.641	9
Music	0.973	-	0.973	2
Art	0.807	0.193	0.614	10
Needlework	0.692	-	0.692	8
Sport - boys	0.973	-	0.973	2
Sport - girls	1.000	-	1.000	1

Note: Numbers in parentheses are net teacher surpluses

<u>REAL SCHOOLS</u>				
German	0.586	0.086	0.500	10
History	0.137	0.123	0.014	18
Geography	0.260	-	0.260	13
Evan. Rel.	0.855	-	0.855	4
Rom. Cath. Rel.	0.759	-	0.759	8
English	0.574	0.086	0.488	11
French	0.295	0.229	0.066	16
Mathematics	0.968	-	0.968	1
Physics	0.882	-	0.882	3
Chemistry	0.882	-	0.882	3
Biology	0.946	-	0.946	2
Social Studies	0.123	-	0.123	15
Music	0.843	-	0.843	5
Drawing	0.821	0.012	0.809	7
Handicrafts, etc.	0.821	0.012	0.809	7
Needlework	0.696	-	0.696	9
Shorthand	0.170	0.123	0.047	17
Typing	0.170	-	0.170	14
Domestic Science	0.833	-	0.833	6
Sports	0.350	-	0.350	12

Indicators measure the degree of shortage of teachers of given subjects. The highest value possible is 1.000, indicating shortage in all Länder of the Federal Republic of teachers of given subject between 1961 and 1966.

Table 17

Relative Teacher Shortages and Surpluses in Technical and Vocational Education
1961 to 1966 and expected 1967 to 1970

Subjects	SURPLUS 1961-1966		SHORTAGES			
	Considerable	Slight	1961-1966		Expected 1967-1970	
			Considerable	Slight	Considerable	Slight
1. <u>Agriculture, Forestry</u> <u>Fishing, etc.</u>	NW ⁽¹⁾	BE, HE, RP, SA				
1.1 Agriculture, farming			-	BA	-	BA, NS
1.2 Animal husbandry			-	NS, NW	NS	BA, NW
1.3 Forestry			-	-	NW	-
1.4 Horticulture			-	-	-	-
2. <u>Industrial, Technical</u> <u>and Craft Trades</u> (excluding engineering trades)						
2.1 Metal		BW	BA, HE, NS, NW, BE, RP, SH	-	HE, NS, RP, SA	BA, NW
2.2 Electrical		BA	BA, HA, HE, NS, NW, RP, SH	-	HA, HE, NS, NW, RP, SA	BW, BA
2.3 Textiles and Clothing		HA	-	BW, NS	NS	-
2.4 Nutrition, Catering			-	BW, NS	NS	-
2.5 Other		HE, NW	-	BW, HA, NS	NS	-
3. <u>Engineering</u> <u>Occupations</u>						
3.1 Construction, building	HE, RP	BA, NW, SH	BE, NS	HA, NW	BE, NS	HA, NW
3.2 Civil engineering		BA, RP, SA	BE, HA, NS, NW	BA, HE	BE, HA, NS, NW	BA, HE, RP
3.3 Electrical "			BE, HA, HE, NS, RP	BA, SH, NW	BE, HA, HE, NS, RP	BA, SH, NW
3.4 Mechanical "			BE, HA, HE, NS, SH	BA, RP, NW	BE, HA, HE, NS, RP	BA, SH, NW
4. <u>Commerce, Trade, Law,</u> <u>Administration</u>						
4.1 Certificated teachers of commerce			HE, NW, RP, SH	BA, SA	HE, RP, SH	BA, NW
4.2 Other			SH	BW, SA	BW, SH	-
5. <u>Domestic Economy,</u> <u>Health and Related</u> <u>Subjects</u>						
5.1 Home economics			RP, SH	BW, HA, NW	NS, RP, SH	BA, BW, BE, HA, NW
5.2 Health & hygiene			-	BW	BW	-
5.3 Hairdressing occupations			HA, NW, RP, SH	-	HA, RP, SH	NW
5.4 Other			NS	BW	NS	BW
6. <u>Social Welfare</u> <u>Occupations</u>		BW				
6.1 Social studies, sociology			NS, NW	BW, HE	NS, NW	BW
6.2 Pedagogy			NS	BW, HE, NW, RP	NS	BW, NW, RP
6.3 Psychology			NS	BW, HE, NW, RP	NS	BW, NW, RP
7. <u>Artistic Occupations</u>	BA (art)	BE, BA (music)	-	BW, HE, NW	HE	BW, NW, HA
8. <u>Other Occupations</u>						
8.1 Librarians			BA	HA, NW	BA	HA, NW
8.2 Translators, interpreters	BA (Spanish)	BA (English)	-	BA	BA (French)	BW

Notes: (1) up to 1962.

In some cases the shortage is only in specific subjects within the main group. Thus in the case of group 2.2, between 1961 and 1966, Bavaria had a slight surplus in some subjects and a considerable shortage in others.

For meaning of abbreviations used for Länder, see Table 13.

Source: Ständige Konferenz der Kultusminister, DOK. No. 20.

it is expected that there will be a slight deficit by 1970. Other fields, apart from engineering and technical trades in which there will be quite a shortage of teachers, are home economics and social welfare subjects.

By now the state of demand for teachers of various kinds in Germany is clear and it is time to take a look at actual changes in the stock of teachers that have taken place and the factors that have brought these changes about. Knowledge of these factors can be used to estimate the future supply of teachers and to design measures to improve the future teacher supply situation. The next chapter will concentrate on the quantitative changes that have taken place and later chapters will deal with institutions that train teachers and measures that have been taken to increase the stock of teachers.

CHAPTER III

FACTORS ACCOUNTING FOR CHANGES IN STOCKS OF TEACHERS

This chapter will try to analyse the components in changes in stocks of teachers between two different time periods. The purpose of this is to estimate replacement needs (in addition to increased requirements due to higher enrolments and/or improved pupil/class or teacher/class ratios).

Some analysis has been made in Germany of the source of new teachers entering the teaching force in a given year and the reasons for departure of others. It is traditionally thought that newly qualified graduates trained to be teachers comprise the main element in new members of the teaching force and retirements the main component of those departing. How far is this true? This chapter will first of all deal with changes in stocks of teachers and then analyse in greater detail the supply of newly graduated teachers, upon which replenishment of the stock depends.

Changes in Stocks of Teachers

This section will deal with changes in the stock of teachers in (1) schools providing general education; (2) schools providing vocational and technical education. The data will be based only on full-time teachers (hauptamtliche and hauptberufliche). Unfortunately, comprehensive data are not available for all the Länder of the Federal Republic so that some results will have to be based on information derived from incomplete coverage.

When changes in stocks of teachers are considered, it is natural that great emphasis is put on teachers in the general schools, as they account for 85 per cent of all the full-time teachers covered by this study. Amongst the teachers of general schools, those who teach in basic and main schools (some teachers in "real" schools, special schools and gymnasiums in the City States included) make up about 70 per cent of the total, so that changes in this category weigh heavily in the total of changes taking place in the primary and secondary schools in Germany.

1. Sources of New Entrants to the Teaching Profession 1961 to 1965

Most Länder were able to report year by year changes in the number of full-time teachers employed in the different types of schools between 1961 and 1965 and to give some idea of where new teachers came from and the reasons for the departure of teachers who leave the teaching force.

The source of a new teacher was given as :

- (a) New entrant from Colleges of Education, etc.
- (b) Re-entrants (females separately distinguished)
- (c) Teachers coming from other Länder of the B.R.D.
- (d) Teachers coming from other types of schools
- (e) Persons coming from other occupations
- (f) Other sources

Table 18

Changes in Full-Time Teacher Stocks : Sources of New Teachers
Reasons for Departure of Leavers

Percentage distribution of: (1) Entrants to, (2) Departures from teaching force, by source of entrant and reason for departure	Basic and Main Schools	Special Schools	"Real" Schools	Gymnasiums	Vocational Schools (full time, part-time and promotion)	Technical and Advanced Technical Schools	Colleges of Engineering
I. ENTRANTS							
as % of total stock	10.9	17.3	11.5	7.7	5.8	9.9	11.6
Source of Entrants	100.0	100.0	100.0	100.0	100.0	100.0	100.0
new recruits	76.6	20.2	30.6	67.6	66.7	30.0	19.8
re-entrants	4.8	3.7	4.5	2.5	5.0	-	-
of whom: female	(1.6)	(0.8)	(0.5)	(1.1)	(3.7)	-	-
from other Länder	3.2	2.2	4.8	7.9	6.9	7.1	4.3
from other school-types	1.3	45.5	45.8	2.3	6.1	28.6	2.8
from other occupations	0.1	1.7	1.1	1.9	6.6	24.3	66.7
other sources	14.0	26.7	13.2	17.8	8.7	10.0	6.4
II. DEPARTURES							
as % of total stock	7.6	7.2	6.7	5.5	5.4	4.7	3.4
Reasons for Departure	100.0	100.0	100.0	100.0	100.0	100.0	100.0
attainment of retirement age	25.2	29.7	22.1	20.2	20.0	30.9	50.0
unfit for service	11.4	6.6	8.9	11.6	11.1	3.8	7.9
death	5.1	4.9	5.7	6.4	6.5	7.7	10.5
marriage	10.1	5.9	11.8	6.7	9.8	-	-
move to other Länder	6.3	6.3	8.9	9.8	8.1	3.8	7.9
move to other school-type	12.1	22.7	10.7	6.8	15.6	11.5	2.6
other reasons	29.8	23.9	31.9	38.5	28.9	42.3	21.1
Number of Entrants per 100 Departures	146	242	187	148	108	212	341

NOTE: Figures are annual averages based on data covering 4 school-years (1961/62, 1962/63, 1963/64, 1964/65) for those Länder for which data were available.

Source: Ständige Konferenz der Kultusminister, DOK. No. 21.

The reasons for departure were given as :

- (a) Attainment of normal retirement age
- (b) Unfit for service in the schools
- (c) Death
- (d) Marriage
- (e) Departure to another Land of the Federal Republic
- (f) Move to a different type of school
- (g) Other reasons.

As has been stated earlier, data are not available for all the Länder on all of the reasons for entering and leaving the teaching force. However, the information obtained from some Länder can be used to estimate values for the entire Federal Republic. Also, so far all information has been given for all teachers without regard to the changing age and sex composition of the teaching force. The reasons for leaving the teaching force and sources of new teachers throw light on these very important matters.

Table 18 gives the average annual number of new teachers from 1961 to 1965 as a percentage of the stock of such teachers at the beginning of the year and the percentage distribution of the new teachers by their source. This is compared with the number of departing teachers also expressed as the average annual percentage of the stock of teachers at the beginning of the year. (1) Here, too, the total number of departing teachers is distributed according to their reasons for departure. Thus, it can be seen that for all school types new teachers outnumbered departing teachers, though in the case of vocational schools this was not by a great deal. It should be noted that all information in this section refers to persons whose principal occupation is teaching (hauptamtliche and hauptberufliche teachers). For the sake of simplicity they are referred to as "full-time" teachers.

Without a knowledge of the amounts involved in each case, percentage distributions are not very helpful. The change in teacher stock from year to year is known : what is difficult is to know how the change in stock came about, i.e. how many gains and how many losses there were.

The first set of tables given below show the change in stock from year to year in the number of full-time teachers in schools providing general education. For basic and main schools, information on sources of new entrants and reasons for departures of leavers is given in the same table. Data are given for each of the Länder separately as far as these data are available. This makes estimating totals for the Federal Republic possible, even when all data are not available. The information on the number of overall gains (entrants minus departures) is summarised in a fifth table which shows these net gains by sex of teachers. Using the figures just presented on percentage distribution entrants and departures, by reason for leaving and source of new entrants, some rather interesting conclusions can be drawn on flows into and out of the teaching force in Germany. They will be discussed following the set of tables to be presented below.

(1) A change in stock is defined as the difference in the total number of teachers between two time periods. The difference is equal to the number of new entrants minus the number of departures within the given time interval.

Table

Teachers

I. Entrants into and Departures from the Teaching

Basic and

School-Type and Länder	Y e a r	Number of full-time teachers						Net gains (t ₁ - t ₀)	Gains : Teacher		
		beginning of school year			beginning of following school year				New entrants		
		total	male	female	total	male	female		total	of whom	
										normal education	special short training
Grund and Hauptschulen (Volksschulen)											
Baden-Württemberg	1961/62	19,892	11,278	8,614	20,786	11,444	9,342	894	1,596	(1,596)	(-)
	1962/63	20,786	11,444	9,342	21,452	11,543	9,909	666	1,679	(1,679)	(-)
	1963/64	21,452	11,543	9,909	22,673	11,675	10,998	1,221	2,432	(2,152)	(280)
	1964/65	22,673	11,675	10,998	23,423	11,962	11,461	750	2,182	(1,950)	(232)
Bavaria ⁽¹⁾	1961/62	25,996	13,263	12,733	26,189	13,285	12,904	193	..	..	..
	1962/63	26,189	13,285	12,904	26,668	13,486	13,182	479	..	..	..
	1963/64	26,668	13,486	13,182	27,357	13,881	13,476	689	..	..	..
	1964/65	27,357	13,881	13,476	27,952	14,051	13,901	595	..	..	..
Berlin	1961/62	4,561	2,031	2,530	4,582	2,010	2,572	21	278	(278)	(-)
	1962/63	4,582	2,010	2,572	4,570	1,976	2,594	-12	278	(278)	(-)
	1963/64	4,570	1,976	2,594	4,659	1,936	2,723	89	305	(305)	(-)
	1964/65	4,659	1,936	2,723	4,752	1,915	2,837	93	294	(294)	(-)
Bremen ⁽²⁾	1961/62	2,149	1,048	1,101	2,219	1,069	1,150	70	118	(118)	(-)
	1962/63	2,219	1,069	1,150	2,271	1,089	1,182	52	120	(120)	(-)
	1963/64	2,271	1,089	1,182	2,334	1,128	1,206	63	135	(135)	(-)
	1964/65	2,334	1,128	1,206	2,412	1,111	1,301	78	157	(156)	(1)
Hamburg ⁽³⁾	1961/62	5,480	2,508	2,972	5,481	2,458	3,023	1	263	..	..
	1962/63	5,481	2,458	3,023	5,508	2,408	3,100	27	282	..	..
	1963/64	5,508	2,408	3,100	5,594	2,366	3,228	86	317	..	..
	1964/65	5,594	2,366	3,228	5,766	2,345	3,421	172	405	..	..
Hessen ⁽⁴⁾	1961/62	..	..	..	14,956	8,576	6,380	670	835	(835)	(-)
	1962/63	..	..	..	15,775	8,785	6,990	554	1,186	(1,186)	(-)
	1963/64	..	..	..	16,078	8,812	7,266	928	1,450	(1,450)	(-)
	1964/65	..	..	..	16,468	8,781	7,687	586	1,077	(1,077)	(-)
Lower Saxony	1961/62	18,587	11,415	7,172	19,915	11,457	8,458	1,328	2,040	(1,331)	(709)
	1962/63	19,915	11,457	8,458	20,610	11,291	9,319	695	1,869	(1,508)	(361)
	1963/64	20,610	11,291	9,319	21,300	11,117	10,183	690	1,878	(1,639)	(239)
	1964/65	21,300	11,117	10,183	22,073	10,844	11,229	773	1,869	(1,781)	(88)
North-Rhine-Westphalia ⁽⁵⁾	1961/62	34,282	17,080	17,202	34,659	16,709	17,950	377	1,970	(1,970)	(-)
	1962/63	34,659	16,709	17,950	35,369	16,434	18,935	710	2,237	(2,237)	(-)
	1963/64	35,369	16,434	18,935	38,096	16,869	21,227	2,727	5,097	(3,046)	(2,051)
	1964/65	38,096	16,869	21,227	38,770	16,854	21,916	674	3,473	(3,473)	(-)
Rhineland-Palatinate	1961/62	9,562	5,448	4,114	9,835	5,419	4,416	273	765	(765)	(-)
	1962/63	9,835	5,419	4,416	10,225	5,439	4,786	390	923	(923)	(-)
	1963/64	10,225	5,439	4,786	10,153	5,360	4,793	-72	229	(229)	(-)
	1964/65	10,153	5,360	4,793	10,358	5,349	5,009	-205	634	(634)	(-)
Saarland	1961/62	3,183	1,892	1,291	3,321	1,953	1,368	138	281	(275)	(6)
	1962/63	3,321	1,953	1,368	3,338	1,981	1,357	17	108	(100)	(8)
	1963/64	3,338	1,981	1,357	3,451	2,015	1,436	113	243	(235)	(8)
	1964/65	3,451	2,015	1,436	3,571	2,036	1,535	120	264	(264)	(-)
Schleswig-Holstein	1961/62	6,551	3,823	2,728	6,639	3,685	2,954	88	..	..	..
	1962/63	6,639	3,685	2,954	6,741	3,595	3,146	102	..	..	..
	1963/64	6,741	3,595	3,146	6,568	3,480	3,088	-173	..	..	..
	1964/65	6,568	3,480	3,088	6,527	3,351	3,176	-41	..	..	..
Federal Republic	1961/62	..	..	..	148,582	78,065	70,517	4,053	..	..	..
	1962/63	..	..	..	152,527	78,027	74,500	3,680	..	..	..
	1963/64	..	..	..	158,263	78,639	79,624	6,361	..	..	..
	1964/65	..	..	..	162,072	78,599	83,473	4,005	..	..	..
								18,099			

Notes:

Volksschulen (Basic and Main Schools)

- (1) Includes some special education. Public schools only
- (2) Includes "real" schools
- (3) Includes special schools. Public schools only
- (4) Includes "real" schools but not evening "real" schools. Also includes public special schools
- (5) Includes special classes and promotion (aufbau) classes
- (6) Includes moves to other types of schools
- (7) Includes persons retiring on reaching age 62
- (8) Includes moves from other types of schools
- (9) Includes re-entrants, teachers coming from other school types and from other occupations
- (10) Includes all entrants except new entrants

Flows

Profession by Origin and Destination 1961 to 1965

Main schools

who entered profession between t ₀ and t ₁ came from:							Losses: Teachers who left the profession between t ₀ and t ₁ reasons:								
Re-entrants		other Länder	other school types	other occupations	other	Total all gains	legal retirement age	un-satisfactory service	death	marriage	moved to other Land	moved to other school type	other reasons		Total all losses
total	of whom female teachers												total	early retirement (62 yrs.)	
139	..	80	36	-	235	2,086	219	81	57	154	41	261	379	..	1,192
144	..	78	32	-	178	2,111	221	102	75	152	62	292	541	..	1,445
173	..	111	37	-	325	3,078	347	96	65	222	62	393	672	..	1,857
92	..	88	39	-	243	2,644	334	102	65	187	72	417	717	..	1,894
..	..	..	..	..	..	1,260	309	265	90	61	36	54	252	..	1,067
..	..	..	..	..	..	1,465	299	209	77	60	49	70	222	..	986
..	..	..	..	..	..	1,475	160	155	65	39	47	47	273	(76)	786
..	..	..	..	..	..	1,728	391	152	86	56	44	65	339	(121)	1,133
9	(6)	8	..	-	126(8)	421	40	35	15	30	45	..	235(6)	(48)	400
5	(5)	33	..	2	65(8)	383	51	36	10	25	47	..	226(6)	(62)	395
7	(5)	85	..	5	86(8)	488	37	27	12	32	33	..	258(6)	(67)	399
6	(5)	45	..	2	56(8)	403	41	28	13	34	31	..	163(6)	(36)	310
3	(3)	22	2	-	60	205	31	2	4	19	26	6	47	..	135
7	(7)	18	6	-	36	187	19	8	6	13	24	7	58	..	135
2	(2)	23	6	1	25	192	12	6	6	36	15	13	41	..	129
4	(4)	15	8	-	25	209	19	8	4	39	14	15	32	..	131
..	..	37	..	..	67(9)	367	96	35	10	52	19	..	154(6)	..	366
..	..	48	..	..	53(9)	383	59	17	11	40	22	..	207(6)	(77)	356
..	..	49	..	..	108(9)	474	60	22	16	50	28	..	212(6)	(69)	388
..	..	47	..	..	164(9)	616	80	23	8	80	36	..	217(6)	(81)	444
27	(24)	104	82	7	382	1,437	208	142	54	21	..	38	304	..	767
29	(23)	107	32	11	170	1,535	198	92	50	67	..	113	461	..	981
35	(29)	95	113	3	182	1,878	338	65	44	37	66	85	315	..	950
82	(74)	132	118	4	157	1,570	309	61	46	73	63	120	312	..	984
87	(55)	88	42	4	578	2,839	352	125	77	130	98	164	565	(87)	1,511
90	(55)	65	24	4	557	2,609	373	110	85	176	141	221	808	(128)	1,914
88	(49)	51	45	5	446	2,513	383	96	64	195	142	219	724	(131)	1,823
71	(37)	95	32	4	443	2,514	424	86	61	196	137	236	601	(152)	1,741
..	..	..	..	..	773(10)	2,743	714	412	140	266	169	182	483	..	2,366
..	..	..	..	..	754(10)	2,991	720	375	122	274	174	190	426	..	2,281
..	..	..	..	..	101(10)	5,198	764	369	143	192	283	204	516	..	2,471
..	..	..	..	..	150(10)	3,623	842	364	117	318	205	298	805	..	2,949
32	(26)	36	6	..	13	852	134	118(7)	34	74	56	37	126	..	579
29	(25)	40	1	..	11	1,004	134	114(7)	19	91	61	36	159	..	614
27	(22)	55	..	..	24	335	80	75(7)	27	120	37	31	72	..	407
33	(22)	59	..	..	77	803	123	92(7)	33	160	65	53	72	..	598
31	(31)	6	-	-	-	318	52	20	6	52	8	27	15	..	180
40	(40)	9	-	-	-	157	55	29	9	20	5	14	8	..	140
44	(44)	11	-	-	-	298	59	28	7	49	7	18	17	..	185
34	(34)	8	-	-	5	311	52	28	8	58	-	31	14	..	191
..	..	..	..	..	..	586	..	..	..	..	..	..	..	..	498
..	..	..	..	..	..	613	..	..	..	..	..	..	..	..	511
..	..	..	..	..	..	358	..	..	..	..	..	..	..	..	531
..	..	..	..	..	..	468	..	..	..	..	..	..	..	..	509
..	..	..	..	..	..	13,114	..	..	..	..	..	..	..	..	9,061
..	..	..	..	..	..	13,438	..	..	..	..	..	..	..	..	9,758
..	..	..	..	..	..	16,287	..	..	..	..	..	..	..	..	9,926
..	..	..	..	..	..	14,889	..	..	..	..	..	..	..	..	10,884
..	..	..	..	..	..	57,728	..	..	..	..	..	..	..	..	39,629

Source: Ständige Konferenz der Kultusminister, DOK. No. 21.

Table 20

Teacher Flows

II. Real Schools

Länder	Year	Number of Full-time Teachers						Net Gains	Total Gains	Total losses
		beginning of school-year			beginning of fol- lowing school-year					
		male	female	total	male	female	total			
Baden-Württemberg	1961/62	888	638	1526	974	738	1712	186	290	104
	1962/63	974	738	1712	1066	840	1906	194	305	111
	1963/64	1066	840	1906	1231	944	2175	269	435	166
	1964/65	1231	944	2175	1433	1073	2506	331	483	152
Bavaria ⁽¹⁾	1961/62	1065	1405	2470	1220	1545	2765	295	426	131
	1962/63	1220	1545	2765	1327	1594	2921	156	286	130
	1963/64	1327	1594	2921	1451	1683	3134	213	366	153
	1964/65	1451	1683	3134	1617	1805	3422	288	464	176
Berlin ⁽¹⁾	1961/62	513	432	945	492	439	931	-14	80	94
	1962/63	492	439	931	490	438	928	-3	92	95
	1963/64	490	438	928	500	460	960	32	119	87
	1964/65	500	460	960	488	465	953	-7	87	94
Niedersachsen ⁽¹⁾	1961/62	1987	1123	3110	1983	1191	3174	64	278	214
	1962/63	1983	1191	3174	1998	1235	3233	59	300	241
	1963/64	1998	1235	3233	2033	1289	3322	89	320	231
	1964/65	2033	1289	3322	2193	1459	3652	330	505	175
North-Rhine Westphalia	1961/62	2854	2054	4908	3020	2172	5192	284	558	274
	1962/63	3020	2172	5192	3068	2229	5297	105	364	259
	1963/64	3068	2229	5297	3143	2378	5521	224	528	304
	1964/65	3143	2378	5521	3217	2563	5780	259	646	387
Rhineland-Palatinate	1961/62	210	170	380	231	186	417	37	..	..
	1962/63	231	186	417	258	212	470	53	91	38
	1963/64	258	212	470	293	243	536	66	98	32
	1964/65	293	243	536	356	285	641	105	134	29
Saarland	1961/62	107	62	169	122	70	192	23	33	10
	1962/63	122	70	192	128	80	208	16	21	5
	1963/64	128	80	208	130	80	210	2	11	9
	1964/65	130	80	210	141	96	237	27	39	12
Schleswig-Holstein	1961/62	1161	670	1831	1151	720	1871	40	156	116
	1962/63	1151	720	1871	1130	780	1910	39	174	135
	1963/64	1130	780	1910	1092	795	1887	-23	115	138
	1964/65	1092	795	1887	1115	823	1938	51	194	143
Total ⁽³⁾	1961/62	8785	6554	15339	9193	7061	15339	915	1821 ⁽²⁾	943 ⁽²⁾
	1962/63	9193	7061	16254	9465	7408	16873	619	1633	1014
	1963/64	9465	7408	16873	9873	7872	17745	872	1992	1120
	1964/65	9873	7872	17745	10560	8569	19129	1364	2552	1168

(1) Excludes evening "real" schools.

(2) Excludes Rhineland-Palatinate.

(3) Excluding Bremen, Hamburg and Hessen included in table 19.

Source: Ständige Konferenz der Kultusminister, DOK. No. 21.

Table 21
Teacher flows
III. Special Schools

Länder	Year	at beginning of						Net gains	Total gains	Total losses
		school-year			at beginning of following school-year					
		male	female	total	male	female	total			
Baden-Württemberg	1961/62	323	234	557	340	278	618	61	90	29
	1962/63	340	278	618	363	340	703	85	120	35
	1963/64	363	340	703	433	428	861	158	199	41
	1964/65	433	428	861	506	485	991	130	182	52
Bavaria ⁽¹⁾	1961/62	328	340	668	339	375	714	46	..	..
	1962/63	339	375	714	357	390	747	33	..	..
	1963/64	357	390	747	372	437	809	62	..	..
	1964/65	372	437	809	411	440	851	42	..	..
Berlin	1961/62	299	287	586	291	306	597	11	63	52
	1962/63	291	306	597	280	304	584	-13	49	62
	1963/64	280	304	584	297	296	593	9	71	62
	1964/65	297	296	593	315	327	642	49	91	42
Bremen	1961/62	87	95	182	109	93	202	20	33	13
	1962/63	109	93	202	99	119	218	16	23	7
	1963/64	99	119	218	96	133	229	11	27	16
	1964/65	96	133	229	95	145	240	11	27	16
Lower Saxony	1961/62	440	240	680	466	294	760	80	110	30
	1962/63	466	294	760	500	324	824	64	101	37
	1963/64	500	324	824	548	389	937	113	144	31
	1964/65	548	389	937	631	550	1181	244	284	40
North-Rhine Westphalia	1961/62	1217	840	2057	1269	955	2224	167	310	143
	1962/63	1269	955	2224	1332	1105	2437	213	378	165
	1963/64	1332	1105	2437	1386	1312	2698	261	441	180
	1964/65	1386	1312	2698	1455	1493	2948	250	558	308
Rhineland-Palatinate	1961/62	155	128	283	159	145	304	21	..	..
	1962/63	159	145	304	182	151	333	29	..	..
	1963/64	182	151	333	184	159	343	10	19	9
	1964/65	184	159	343	206	168	374	31	47	16
Saarland	1961/62	58	35	93	69	41	110	17	..	..
	1962/63	69	41	110	79	49	128	18	..	..
	1963/64	79	49	128	87	66	153	25	..	..
	1964/65	87	66	153	95	83	178	25	..	..
Schleswig-Holstein	1961/62	238	183	421	237	225	462	41	65	24
	1962/63	237	225	462	251	246	497	35	58	23
	1963/64	251	246	497	278	274	552	55	84	29
	1964/65	278	274	552	272	284	556	4	40	36
Total (excl. HA, HE)	1961/62	3145	2382	5527	3279	2712	5991	464	..	..
	1962/63	3279	2712	5991	3443	3028	6471	480	..	..
	1963/64	3443	3028	6471	3681	3494	7175	704	..	..
	1964/65	3681	3494	7175	3986	3975	7961	786	..	..
Total (excl. HA, HE, SA, BA) (RP in 1961/62 and 1962/63)	1961/62	2604	1879	4483	2712	2151	4863	380	671	291
	1962/63	2712	2151	4863	3007	2589	5596	400	729	329
	1963/64	3007	2589	5596	3222	2991	6213	617	985	368
	1964/65	3222	2991	6213	3480	3452	6932	719	1229	510

(1) Excludes special classes attached to basic and main schools (volkschulen)

Source: Ständige Konferenz der Kultusminister, DOK. No. 21,

Table 22
Teacher Flows
IV. Gymnasium Schools

L a n d e r	Y e a r	Number of full-time teachers						Net gains	Total gains	Total losses
		Beginning of school-year			Beginning of following school-year					
		male	female	total	male	female	total			
Baden-Württemberg ⁽¹⁾⁽²⁾	1961/62	4,092	1,477	5,569	4,121	1,472	5,593	24	243	219
	1962/63	4,121	1,472	5,593	4,233	1,503	5,736	143	425	282
	1963/64	4,233	1,503	5,736	4,311	1,567	5,878	142	454	312
	1964/65	4,311	1,567	5,878	4,604	1,650	6,254	376	715	339
Bavaria ⁽³⁾	1961/62	5,800	2,196	7,996	5,850	2,219	8,069	73	338	265
	1962/63	5,850	2,219	8,069	6,076	2,271	8,347	278	536	258
	1963/64	6,076	2,271	8,347	6,210	2,395	8,605	258	525	267
	1964/65	6,210	2,395	8,605	6,437	2,447	8,884	279	594	315
Berlin ⁽⁴⁾	1961/62	1,042	731	1,773	1,017	714	1,731	-42	124	166
	1962/63	1,017	714	1,731	1,014	699	1,713	-18	169	187
	1963/64	1,014	699	1,713	1,114	765	1,879	166	288	122
	1964/65	1,114	765	1,879	1,143	758	1,901	22	153	131
Bremen	1961/62	388	188	576	400	199	599	23	39	16
	1962/63	400	199	599	412	203	615	16	48	32
	1963/64	412	203	615	438	220	658	43	66	23
	1964/65	438	220	658	430	229	659	1	40	39
Hamburg ⁽¹⁾⁽⁴⁾	1961/62	939	497	1,436	954	491	1,445	9	67	58
	1962/63	954	491	1,445	968	493	1,461	16	80	64
	1963/64	968	493	1,461	1,004	502	1,506	45	156	111
	1964/65	1,004	502	1,506	1,025	501	1,526	20	95	75
Hessen ⁽¹⁾⁽⁵⁾	1961/62	..	..	..	3,071	1,128	4,199	144	298	154
	1962/63	..	..	..	3,144	1,146	4,290	117	334	217
	1963/64	..	..	..	3,277	1,196	4,473	129	382	253
	1964/65	..	..	..	3,437	1,210	4,647	162	403	241
Lower Saxony ⁽⁴⁾	1961/62	3,451	1,556	5,007	3,493	1,617	5,110	103	467	364
	1962/63	3,493	1,617	5,110	3,559	1,672	5,231	121	456	335
	1963/64	3,559	1,672	5,231	3,666	1,695	5,361	130	478	348
	1964/65	3,666	1,695	5,361	3,692	1,714	5,406	45	476	431
North-Rhine Westphalia ⁽⁵⁾	1961/62	7,865	4,673	12,538	8,220	4,594	12,814	276	818	542
	1962/63	8,220	4,594	12,814	8,356	4,646	13,002	188	843	655
	1963/64	8,356	4,646	13,002	8,493	4,618	13,111	109	832	723
	1964/65	8,493	4,618	13,111	8,861	4,671	13,532	421	1,089	668
Rhineland Palatinate ⁽⁴⁾⁽⁵⁾	1961/62	1,738	784	2,522	1,774	795	2,569	47	..	..
	1962/63	1,774	795	2,569	1,834	819	2,653	84	186	102
	1963/64	1,834	819	2,653	1,899	828	2,727	74	192	118
	1964/65	1,899	828	2,727	1,978	875	2,853	126	249	123
Saarland	1961/62	541	215	756	560	219	779	23	44	21
	1962/63	560	219	779	616	237	853	74	93	19
	1963/64	616	237	853	634	252	886	33	57	24
	1964/65	634	252	886	632	249	881	-5	55	60
Schleswig Holstein	1961/62	1,490	534	2,024	1,487	532	2,019	-5	92	97
	1962/63	1,487	532	2,019	1,518	529	2,047	28	118	90
	1963/64	1,518	529	2,047	1,552	533	2,085	38	136	98
	1964/65	1,552	533	2,085	1,587	555	2,142	57	163	106
Total: Federal Republic	1961/62	..	..	..	30,947	13,980	44,927	628 ⁽⁶⁾	2,530 ⁽⁶⁾	1,902 ⁽⁶⁾
	1962/63	..	..	..	31,730	14,218	45,948	1,047	3,288	2,241
	1963/64	..	..	..	32,598	14,571	47,169	1,167	3,566	2,399
	1964/65	..	..	..	33,826	14,859	48,685	1,504	4,032	2,528

Notes:

- (1) Public gymnasiums only.
- (2) Includes Wirtschaftsoberschulen and technische Oberschulen.
- (3) Excludes evening gymnasiums, colleges and a few other schools (freie waldorfschulen, spätberufenen gymnasium).
- (4) Excluding studienreferendare (in Berlin there are no full-time referendare).
- (5) Excludes evening gymnasiums and colleges.
- (6) Excluding the Rhineland-Palatinate.

Source:

Ständige Konferenz der Kultusminister, DOK. No. 21.

Table 23

Teacher Flows

V. Summary: Changes in Stocks of Teachers of General Schools from 1961 to 1965 by Sex

L a n d e r	Y e a r (between)	Change in stock of teachers between year t ₀ and t ₁											
		Basic and main schools			"Real" schools			Special schools			Gymnasiums		
		male	female	total	male	female	total	male	female	total	male	female	total
Baden- Württemberg	1961/62	166	728	894	86	100	186	17	44	61	29	-5	24
	1962/63	99	567	666	92	102	194	23	62	85	112	31	143
	1963/64	132	1,089	1,221	165	104	269	70	88	158	78	64	142
	1964/65	287	463	750	202	129	331	73	57	130	293	83	376
	1961/65	684	2,847	3,531	545	435	980	183	251	434	512	173	685
Bavaria	1961/62	22	171	193	155	140	295	11	35	46	50	23	73
	1962/63	201	278	479	107	49	156	18	15	33	226	52	278
	1963/64	395	294	689	124	89	213	15	47	62	134	124	258
	1964/65	170	425	595	166	122	288	39	3	42	227	52	279
	1961/65	788	1,168	1,956	552	400	952	83	100	183	637	251	888
Berlin	1961/62	-21	42	21	-21	7	-14	-8	19	11	-25	-17	-42
	1962/63	-34	22	-12	-2	-1	-3	-11	-2	-13	-3	-15	-18
	1963/64	-40	129	89	10	22	32	17	-8	9	100	66	166
	1964/65	-21	114	93	-12	5	-7	18	31	49	29	-7	22
	1961/65	-116	307	191	-25	33	8	16	40	56	101	27	128
Bremen	1961/62	21	49	70				22	-2	20	12	11	23
	1962/63	20	32	52				-10	26	16	12	4	16
	1963/64	39	24	63				-3	14	11	26	17	43
	1964/65	-17	95	78				-1	12	11	-8	9	1
	1961/65	63	200	263				8	50	58	42	41	83
Hamburg	1961/62	-50	51	1	Included in basic and main schools						15	-6	9
	1962/63	-50	77	27							14	2	16
	1963/64	-42	128	86							36	9	45
	1964/65	-21	193	172							21	-1	20
	1961/65	-163	449	286							86	4	90
Hessen	1961/62	..	..	670							..	..	144
	1962/63	..	..	554							..	..	117
	1963/64	..	..	928							..	..	129
	1964/65	..	..	586							..	..	162
	1961/65	..	..	2,738							..	..	552
Lower Saxony	1961/62	42	1,286	1,328	-4	68	64	26	54	80	42	61	103
	1962/63	-166	861	695	15	44	59	34	30	64	66	55	121
	1963/64	-174	864	690	35	54	89	48	65	113	107	23	130
	1964/65	-273	1,046	773	160	170	330	83	161	244	26	19	45
	1961/65	-571	4,057	3,486	206	336	542	191	310	501	241	158	399
North-Rhine Westphalia	1961/62	-371	748	377	166	118	284	52	115	167	355	-79	276
	1962/63	-275	985	710	48	57	105	63	150	213	136	52	188
	1963/64	435	2,292	2,727	75	149	224	54	207	261	137	-28	109
	1964/65	-15	689	674	74	185	259	69	181	250	368	53	421
	1961/65	-226	4,714	4,488	363	509	872	238	653	891	996	-2	994
Rhineland Palatinate	1961/62	-29	302	273	21	16	37	4	17	21	36	11	47
	1962/63	20	370	390	27	26	53	23	6	29	60	24	84
	1963/64	-79	7	-72	35	31	66	2	8	10	65	9	74
	1964/65	-11	216	205	63	42	105	22	9	31	79	47	126
	1961/65	-99	895	796	146	115	261	51	40	91	240	91	331
Saarland	1961/62	61	77	138	15	8	23	11	6	17	19	4	23
	1962/63	28	-11	17	6	10	16	10	8	18	56	18	74
	1963/64	34	79	113	2	-	2	8	17	25	18	15	33
	1964/65	21	99	120	11	16	27	8	17	25	-2	-3	-5
	1961/65	144	244	388	34	34	68	37	48	85	91	34	125
Schleswig Holstein	1961/62	-138	226	88	-10	50	40	-1	42	41	-3	-2	-5
	1962/63	-90	192	102	-21	60	39	14	21	35	31	-3	28
	1963/64	-115	-58	-173	-38	15	-23	27	28	55	34	4	38
	1964/65	-129	88	-41	23	28	51	-6	10	4	35	22	57
	1961/65	-472	448	-24	-46	153	107	34	101	135	97	21	118
TOTAL: (1)	1961/62	-297	3,680	3,383	408	507	915	134	330	464	530	1	531
	1962/63	-247	3,373	3,126	272	347	619	164	316	480	710	220	930
	1963/64	585	4,848	5,433	408	464	872	238	466	704	735	303	1,038
	1964/65	-9	3,428	3,419	689	697	1,384	305	481	786	1,068	274	1,342
	1961/65	32	15,329	15,361	1,775	2,015	3,790	841	1,593	2,434	3,043	798	3,841
	%	0.2	99.8	100.0	46.8	53.2	100.0	34.6	65.4	100.0	79.2	20.8	100.0

Note: (1) Totals: Basic and main schools — excludes Hessen
 "Real" schools — excludes Bremen, Hamburg, Hessen
 Special schools — excludes Hamburg, Hessen
 Gymnasiums — excludes Hessen

Source:
 Ständige Konferenz der
 Kultusminister, DOK. No. 21.

Using the tables on the previous pages, and making estimates for existing gaps, the number of teachers who left the teaching force between 1961 and 1965 and the number entering can be estimated as follows :

Estimates 1961-1965 (1)	Gains	Losses	Net gains	of which	
				male	female
Basic and main schools	57,728	39,629	18,099	(36)	(18,063)
Special schools	4,150	1,716	2,434	(841)	(1,593)
"Real" schools	8,075	4,285	3,790	(1,775)	(2,015)
Gymnasiums	13,563	9,170	4,393	(3,479)	(914)

(Annual averages may be obtained by dividing above figures by 4)

(1) Method of compilation

Basic and main schools : Gains for Hessen are included. Sex distribution is same as for Federal Republic excluding Hessen.

Special schools : Estimate for total gains and losses are calculated assuming gains = 2.42 times losses. This is based on figures excluding HA, HE, SA, BA in all years and RP in 1961/62 and 1962/63 only.

"Real" schools : Total includes an estimate of gains and losses in RP in 1961/62. They are assumed to be 77 gains and 40 losses.

Gymnasiums : An estimate is made for gains and losses in RP in 1961/62. Gains are estimated at 147, losses at 100. For sex distribution of net gains in total tables, Hesse is included. Same sex distribution is assumed as total including Hessen.

On examining these figures, the most striking fact is the relatively small proportion of males accounting for the net increase in teachers between 1961 and 1965 in all general schools except gymnasiums. This is particularly true for basic and main schools where the number of full-time male teachers was the same in 1965 as it was in 1961. The entire increase in the number of teachers was due to the increase in the number of women teachers. This suggests that it is necessary to examine the age structure of the teaching force and take a look at the extent to which the teaching profession is becoming "feminised". Before going on to these matters, the estimate of the numbers of entrants to the teaching force by their source of origin and the number of teachers leaving the profession by reason for their departure are given below. The estimates are based on data presented earlier on. The results will help in analysing changes in the age structure of the teaching force and the trend towards a higher percentage of the teaching force being female. A reminder is due once again that these are estimates only.

Table 24

Teacher Flows

VI: (i) Estimated source of all new entrants 1961-1965
 (ii) Estimated Reasons for departures of all leavers 1961-1965

Sources of new teachers Reasons for departure of leavers	Basic and main schools	Special schools	"Real" schools	Gymnasiums
I. <u>ENTRANTS</u> : Total	<u>57,728</u>	<u>4,150</u>	<u>8,075</u>	<u>13,563</u>
New recruits	44,220	838	2,471	9,169
re-entrants	2,771	154	363	339
of whom : female	(924)	(33)	(40)	(149)
from other Länder	1,847	91	388	1,071
from other school-types	750	1,888	3,698	312
from other occupations	58	71	89	258
other sources	8,082	1,108	1,066	2,414
II. <u>DEPARTURES</u> : Total	<u>39,629</u>	<u>1,716</u>	<u>4,285</u>	<u>9,170</u>
Attainments of retirement	9,987	510	947	1,852
unfit for service	4,518	113	381	1,064
death	2,021	84	244	587
marriage	4,003	101	506	614
move to other Länder	2,497	108	381	899
move to other school-type	4,795	390	458	624
other reasons	11,808	410	1,368	3,530

Calculated using estimates of entrants and leavers as shown above and percentage distribution of reasons for leaving and sources of entrants from table 18.

From the above figures, the following conclusions may be drawn :

Additions to the teacher stock

- For basic and main schools, new graduates from teacher training colleges and universities, respectively, are indeed the major source of additions to the stock of teachers.
- For special schools and "real" schools new graduates are numerically of less significance than teachers coming from other types of schools as far as additions to the teaching force are concerned. Most of the additional teachers for these two school types come from experienced basic and main school teachers who take a supplementary examination to qualify for teaching at these schools. A move from basic and main schools to "real" schools, is considered a promotion. Who are the teachers who move to "real" schools? Is there evidence to suggest that more male teachers move on to "real" schools, hence contributing to the further feminisation of the basic and main schools' teaching force?
- Contrary to what might have been expected, only a comparatively small number of re-entrants into the teaching force were female. This may mean, unfortunately, that female

teachers who leave the teaching profession do not come back in any great numbers after some years of absence. The available evidence is not sufficient to make any judgement on this question, but given the preponderance of females amongst the newly qualified teachers, it is of some importance to know what the length and pattern of their teaching career is likely to be.

- (d) In none of the school types providing general education is recruitment from other professions and occupations of any significance in adding to the stock of teachers. It may be that in the gymnasiums there are some teachers working a few hours a week who are principally occupied outside the schools, but they will not show up in these figures. Even though the gymnasiums obtained a few teachers from other occupations, it can be reasonably concluded that, at least for schools providing general education, the working world outside is unlikely to prove a fruitful source of supply of new teachers.
- (e) The sources examined above taken together still fail to account for a good number of entrants to the teaching profession each year. It is possible that many of the teachers listed under "other sources" should be classified under one of the sources specifically mentioned: some of these teachers return from German schools abroad, further study, leaves of absence, etc.

2. Reasons for the Departure of Teachers from the Teaching Profession, 1961 to 1965

- (a) The first point to be noticed here is that death and retirement accounted for only 30 per cent of all departures from the basic and main schools. The rates are at roughly that level for other general schools also. Later on, the age structure of the teaching force will be used to estimate the probable ratio of male to female teachers who reached the age of retirement or who died.
- (b) Each year the German schools lose a not inconsiderable number of teachers who are judged to be unfit for service. Most of these teachers are probably persons who fail the second state examination taken after 2 or more years of service in the schools. Very few cases, probably, are due to ill-health or dismissal for having committed a misdemeanour. This is a very costly system of training that requires so many years of study and practice before a decision is taken as to whether a candidate is likely to be fit for the teaching profession or not. Data presently available do not allow for this analysis.
- (c) The number of women leaving the teaching profession at the time of their marriage is increasing yearly. This is understandable as each year a greater number of young women graduate from the Colleges of Education. Because the influx of women teachers into the basic and main schools is of relatively recent vintage, the long-term effects are as yet hardly discernible. How many young females who graduate from the Colleges of Education this year will still be teaching five or ten years from now? It may be that the very substantial increase in the output of the Colleges of Education, though a necessary condition, is not in itself sufficient to guarantee the relief of the teacher shortage in the basic, main and "real" schools. This too, is an item to be taken into account when the feminisation of the teaching profession is looked at later on (1).

(1) Between 1961 and 1965, basic and main schools lost a yearly average of 1,000 teachers due to marriage and 1,200 due to transfers to other school types. For the year 1965/66 alone these figures were 1,800 for each of the two reasons, or nearly 30 per cent of all new graduates from the Colleges of Education entering teaching that year.

- (d) As was noted earlier, special and "real" schools recruit most of their teachers amongst teachers already qualified to teach at other types of schools. These teachers are qualified basic and main school teachers who take a supplementary examination. As in the case of married women leavers, the basic and main schools are losing a larger number of teachers each year due to transfers to another type of school. The implications of this, too, will have to be considered.
- (e) A very large number of departures were unaccounted for by the reasons listed specifically. It would be of particular interest to know what happens to such a large number of teachers who give up full-time teaching each year.
- (f) Entrants and leavers from other Länder of Germany should be counted as internal transfers when the country is considered as a whole, and hence do not call for any comments in this section. Of course, some Länder may be consistent gainers and others consistent losers. This, amongst other things, is a question of internal migration which cannot be entered into here in any detail.

CHAPTER IV

THE AGE AND SEX STRUCTURE OF THE TEACHING FORCE

In 1964 there were nearly 279,000 full-time teachers employed in German general, vocational and technical schools. Of these 55 per cent were men and 45 per cent women. One third of all these teachers was less than 35 years of age, and amongst the women teachers the corresponding figure was 42 per cent. For so many years attempts to improve the teacher situation in German schools had been hindered by the age structure of the teaching force. Very many teachers were of retirement age, and in the early post-war years, had it not been for substantial flows of refugee teachers from across West German borders, in some years the number of teachers leaving the schools would have been greater than those entering the teaching force. At last, the rapid increase in graduations from Colleges of Education is being reflected in the age-structure of the stock of teachers. Global figures of this kind, however, strongly reflect the state of the basic and main schools as numerically the teachers in these schools account for 70 per cent of the total of all the schools under consideration. The figures concerning each of the school types are given below.

First of all it should be noted that schools providing general education in the City States (Hamburg, Berlin, Bremen) do not divide their pupils in the same way as is done in schools in the other Länder. For this reason, all teachers in schools in the City States are listed as a bloc, even though the teachers have specific teaching qualifications either as gymnasium teachers, or basic and main school teachers, etc. This explains the difference in the age and sex structure of teachers in general schools in the City States. As the total of 17,000 full-time teachers includes nearly 4,000 qualified gymnasium teachers, who are on average older than their basic and main school counterparts and also have a far greater proportion of male than female teachers, the figures for schools in the City States reflect this. In fact, if qualified gymnasium teachers were excluded, the age and sex structure would be similar to that in other parts of Germany, though the City States have a larger proportion of female teachers than schools in other parts of Germany. Another point to be noted about teachers in the City States and Hessen is that the training for basic and main school teachers is not differentiated from the training for "real" school teachers, whereas in all the other "Länder" supplementary examinations must be passed by basic and main school teachers in order to qualify to teach in "real" schools or a university course of study must be followed.

All figures in the tables below refer to teachers in the types of schools listed. This is not quite the same thing as the teachers distributed according to the types of schools in which they are qualified to teach. For example, in 1964 there were 146,000 full-time teachers employed in basic and main schools (excluding City States). Of these 146,000 only 132,000 were particularly qualified to be basic and main school teachers. The remaining 14,000 had other qualifications, some higher, most of them lower. Nevertheless, all general schools, including the City States, employed a total of 141,000 qualified basic and

main school teachers. An examination of how qualified teachers of various types are used in the schools will come later. Suffice it to say for the moment that the percentage of female teachers in the basic and main schools is quite a bit higher than the percentage of qualified female and of all qualified basic and main school teachers. A glance at the data in the tables provided below will show that 51 per cent of basic and main school teachers are female. However only 47 per cent of the qualified teachers were female. Supporting data to show this will be provided shortly.

Keeping in mind these various facts, data on the age and sex composition of the teaching force in German schools are as follows:

Table 25

Full-time Teachers by Age, Sex and Type of School 1964.

Type of Institution	Teachers Aged :									Total
	less than 30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65 and over	
<u>Basic and Main Schools</u> (1)(2)										
male	15,644	6,922	10,027	9,007	6,616	6,416	5,110	11,079	1,139	71,960
(Volksschulen) female	29,778	6,755	10,047	8,641	5,538	5,924	3,569	3,617	507	74,376
total	45,422	13,677	20,074	17,648	12,154	12,340	8,679	14,696	1,646	146,336
<u>Basic, Main, Gymnasium and "Real" Schools in the City States</u> (3)										
male	389	936	1,609	1,169	640	981	916	933	69	8,142
female	2,475	854	1,498	1,304	703	947	682	513	50	9,026
total	3,364	1,790	3,107	2,473	1,343	1,928	1,598	1,446	119	17,168
<u>Special Schools</u> (4)										
male	504	491	970	762	427	316	290	579	90	4,429
(Sonderschulen) female	1,037	518	764	653	352	452	268	287	87	4,425
total	1,541	1,009	1,734	1,415	786	768	558	866	177	8,854
<u>"Real" Schools</u> (1)(5)										
male	1,094	1,148	1,882	1,724	1,107	1,217	904	1,006	88	10,170
female	2,366	855	979	871	534	955	768	545	148	8,021
total	3,460	2,003	2,861	2,595	1,641	2,172	1,672	1,551	236	18,191
<u>Gymnasium Schools</u> (1)(6)										
male	3,502	5,419	5,401	3,842	1,870	4,382	4,876	2,102	217	31,611
female	2,285	1,923	1,936	1,985	931	2,023	1,829	911	238	14,061
total	5,787	7,342	7,337	5,827	2,801	6,405	6,705	3,013	455	45,672
<u>Part-time Vocational Schools</u> (7)										
male	1,073	2,761	2,980	2,491	1,455	1,902	1,845	2,020	153	16,680
(Berufsschulen) female	931	903	1,058	1,081	759	1,004	1,075	558	20	7,389
total	2,004	3,664	4,038	3,572	2,214	2,906	2,920	2,578	173	24,069
<u>Full-time Vocational Schools</u>										
male	215	547	576	403	218	422	461	553	129	3,524
female	541	434	526	554	417	589	631	397	86	4,175
(Berufsfachschulen) total	756	981	1,102	957	635	1,011	1,092	950	215	7,699
<u>Technical and Advanced Technical Schools</u>										
male	191	453	665	575	327	615	443	529	51	3,849
female	494	359	467	510	359	440	304	204	43	3,180
(Fachschulen) total	685	812	1,132	1,085	686	1,055	747	733	94	7,029
<u>Colleges of Engineering</u>										
male	151	421	718	628	464	527	436	400	34	3,779
(Ingenieurschulen) female	24	4	8	17	6	6	3	4	-	72
total	175	425	726	645	470	533	439	404	34	3,851
<u>Total: All Schools</u>										
male	23,263	19,098	24,828	20,601	13,124	16,778	15,281	19,201	1,970	154,144
female	39,931	12,605	17,283	15,616	9,606	12,340	9,129	7,036	1,179	124,725
total	63,194	31,703	42,111	36,217	22,730	29,118	24,410	26,237	3,149	278,869

Notes:

- (1) Excluding the City States and Freie Waldorfschulen.
- (2) Including special and promotion classes; excluding kindergartens.
- (3) Excluding special schools, evening schools and colleges; including Freie Waldorfschulen.
- (4) Excluding special classes attached to basic and main schools.
- (5) Excluding promotion classes attached to basic and main schools and evening "real" schools.
- (6) Excluding evening gymnasiums and colleges.
- (7) Excluding promotion-type vocational schools (berufsaufbauschulen).

Source: Statistisches Bundesamt (A 10/I - j64)

Comments to table 25

1. Basic and Main Schools

It has already been noted in an earlier section that in the last few years practically the entire net addition to the stock of teachers in German basic and main schools came from a net addition to the stock of female teachers. This being the case, it can come as no surprise to note the extremely high number of young female teachers in these schools. Just under half of all female basic and main school teachers were aged less than 35 in 1964, and 40 per cent of all female teachers were aged less than 30. What is perhaps more surprising, given the fact that the total number of male teachers in such schools has hardly changed at all, is that more than 30 per cent of all male teachers in basic and main schools were aged less than 35 in 1964. This means that it is not merely that fewer male than female teachers are becoming qualified to teach in German schools, but also that a far greater number of male teachers are dropping out of the teaching force each year. This is confirmed, first of all, by noting the number of teachers who are of retirement age or who are about to retire. In 1964, there were 17,907 full-time teachers in basic and main schools and in schools in the City States aged 60 years and over. All these teachers can be expected to have retired by 1970. Of the 17,907 teachers, 13,220 or 74 per cent were male teachers. Only 4,687, or 26 per cent, were women. When the corresponding figures for the year 1961 are considered, it can be ascertained that there were 18,640 teachers working full-time in basic and main schools and in all general schools in the City States. Of these 13,527 or 73 per cent were men and 5,113 or 27 per cent were women. Hence it is quite safe to conclude that in the past years approximately three times as many men retired from the teaching force as women. Earlier on it was estimated that between 1961 and 1965 about 12,000 teachers from the same type of schools, either retired or died. If the ratio 3 : 1 is correct, then between 1961/62 and 1964/65, 9,000 male teachers and 3,000 female teachers were lost to the basic and main schools (including City States) through retirement or death. (This assumes that most deaths occurred amongst the older teachers.) Thus of an average annual loss of approximately 3,000 teachers due to death and retirement, 2,225 were men and 725 women.

From the early 1950's onwards, more females than males have been qualifying to become basic and main school teachers. After rising steadily, the ratio of female to male graduates seems to have levelled off at about 2 : 1. Thus the schools are faced with a situation in which for every female teacher who retires, 3 male teachers retire and for every male teacher who qualifies to teach in basic and main schools, two females qualify. The long-term consequences of such developments can hardly be exaggerated. To add to this, there is another means by which qualified male teachers are lost to the basic and main schools. It has been briefly indicated that excepting the City States one of the two methods by which a person may become a qualified "real" school teacher is to pass the basic and main teachers' examinations and then to take a supplementary examination. This is one of the best means of assuring promotion to a type of school which, at present, has a higher status than the basic and main schools. In 1964, 7,407 teachers were employed outside the City States with this kind of qualification and of these 5,228 or 71 per cent were men, so that although fewer men qualify to be basic and main school teachers, more of them go on to take the "real" school teachers' examination. Not only are these teachers lost to the service of the basic and main schools, but they are also probably amongst the best of these teachers. (This last comment applies to the women teachers who go on to qualify for the "real" schools as well.)

The change in the sex composition of the teaching force raises many questions. The high percentage of women teachers is a relatively new phenomenon: more women than men have been graduating only since around 1954, so that by 1964 the full impact of the change was not yet being felt. It is not known yet at what rate married women teachers will give up

teaching to look after their families. The estimates given earlier suggest that, between 1961 and 1965, on average 1,000 teachers left basic and main schools each year for this reason. As there are more and more women teachers each year, this figure can be expected to run at a much higher level. Preliminary data for the 1966 school year show an estimate of 1,800. How many of the departing teachers will return? If they do return, after how long an absence will it be?

After 1975, the ratio of women to men teachers who retire should approximate 1 : 1 (aged 50-55 in 1964). Assuming that there will be some net loss of women teachers due to marriage and child-birth each year, the proportion of men teachers amongst the total is likely to be higher than present graduation rates from teacher training institutions would seem to suggest.

These facts concerning the age and sex composition of the teaching force can be briefly summarised as follows:

- (1) The teaching force is becoming younger and younger : a welcome development as it means that the number of new entrants will exceed leavers by a larger and larger number.
- (2) Most of the new entrants are women; most of the leavers are men. This is contributing to a rapid feminisation of the teaching force of basic and main schools, the longer-term consequences of which can only be guessed at for the time being.

2. "Real" Schools

The age and sex composition of teachers in the "real" schools reflects the fact that of the 18.2 thousand teachers who taught full-time in these schools in 1964, only 7.8 thousand were teachers who had the specific "real" school teachers' qualification. A further 5.6 thousand obtained a "real" school teachers' qualification of the same standard after qualifying to teach in basic and main schools. The others were qualified to teach in basic and main schools or as teachers of craft subjects (needlework, etc.). Naturally, the teachers who qualify to become "real" school teachers after a few years' teaching experience in the basic and main schools are older than those who study for the "real" school teaching profession directly. As the former category of "real" school teachers is mostly men, (75 per cent) most of the men are between the ages of 35 and 45. On the other hand, there was a very heavy concentration of female "real" school teachers in the youngest (under 30 years) age-group. This is due to the fact that in recent years there has been a very rapid expansion in the numbers of teachers who study directly to be "real" school teachers. Most of them are women. About 65 per cent of students passing the 1st "Real" School Teacher's Examination in recent years after university study have been women, and a greater share of new "real" school teachers is likely to come from this source in the future. Although the results of these developments will not show up for a few years yet in the age and sex composition of "real" school teachers, it is clear that in coming years the teaching force should become younger as teachers qualify at an earlier age and the share of women teachers will become much larger.

3. The Gymnasiums

Gymnasium teachers are older, on average, than the teachers of other general schools. One of the main reasons for this is that they qualify when they are older. It is often forgotten that a long training period means a shorter working life, with the difference coming at the beginning of a young person's working life. Most basic and main school

teachers are qualified by the age of 23. Very few gymnasium teachers qualify before the age of 28. This explains the heavy concentration of male teachers in the 30-40 year age-groups. The high percentage of women in the group under 30 is due mainly to the number of young women craft subject teachers, auxiliaries, etc. If only university trained teachers were considered, instead of 16 per cent of women teachers being aged under 30 the figure would be 8 per cent.

The percentage of university trained women teachers shows some signs of being higher in the under 30 age-group than in the other age-groups, but it is difficult to say whether this will eventually lead to a slightly higher percentage of qualified women teachers in the gymnasiums or whether drop-out for family reasons will keep the percentage of women around or below 30 per cent of the total. It would appear that, along with a phenomenon observed in several European countries, the academic secondary schools of Germany remain the last stronghold of the male teacher.

All school types show a relatively small number of teachers aged 45-50 in 1964. This group corresponds almost exactly with those teachers who would have been in training for gymnasium teaching during the war years. Indeed, the number of gymnasium teachers in this age-group is significantly lower than the number aged either 40-45 or 50-55. Another age-group in which there were relatively few teachers was the 60-65 year old group. This means that not too many gymnasium teachers will retire between now and 1970. At a time of rapid expansion in pupil numbers in gymnasium schools, this is a fortunate coincidence.

4. Vocational and Technical Schools

The most noteworthy point here, too, is the high percentage of female teachers in the youngest age-group. Also, full-time vocational schools will have to replace a particularly large number of retiring teachers by 1970. Already in 1964, 3 per cent of all teachers in these schools were above the normal retirement age. Another 12 per cent were aged between 60 and 65. Thus altogether about 15 per cent of the teachers will have to be replaced. Again the percentage of men is higher than that for women: 19.4 per cent of the men and 11.5 per cent of the women. Technical and advanced technical schools, too, will have to replace 15 per cent of the male teachers and 8 per cent of the female teachers by 1970.

Taking all teachers together, a rather clear pattern emerges. The teaching force is getting younger and as a high percentage of male teachers retire they are being replaced by a high percentage of female teachers. Thus in 1964, the picture was as follows, if the proportion of male to female teachers is compared amongst the youngest, the oldest and all age-groups.

Vocational and Technical Schools, 1964

All Teachers	Aged under 30	Aged 60 and above	Total
male	23,263	23,171	154,144
female	39,931	8,235	124,725
% male	36.8	72.0	55.3
% female	63.2	28.0	44.7

The feminisation of the teaching profession will have to be analysed further in a later chapter as it is bound to have far-reaching effects on all spheres of educational activity in Germany.

To complete this section, two tables are presented below, derived from the table giving the number of full-time teachers by age, sex and school-type. The first of these tables gives the percentage distribution of male and female teachers in each age-group, distinguished separately for each school-type. The second gives the ratio of male to female teachers of all teachers in each age-group and school-type.

Table 26

Percentage Distribution of Full-time Teachers by Age, Sex and Type of School 1964

Type of Institution	Teachers Aged :									Total	Number of Teachers
	less than 30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65 and over		
<u>Basic and Main Schools</u> ⁽¹⁾⁽²⁾											
male	21.7	9.6	13.9	12.5	9.2	8.9	7.1	15.4	1.6	100.0	71,960
female	40.0	9.1	13.5	11.6	7.4	8.0	4.8	4.9	0.7	100.0	74,376
total	31.0	9.3	13.7	12.1	8.3	8.4	5.9	10.0	1.1	100.0	146,336
<u>Basic, Main, "Real" and Gymnasium Schools in the City States</u> ⁽³⁾											
male	10.9	11.5	19.8	14.4	7.9	12.0	11.3	11.5	0.8	100.0	8,142
female	27.4	9.5	16.6	14.4	7.8	10.5	7.6	5.7	0.5	100.0	9,026
total	19.6	10.4	18.1	14.5	7.8	11.2	9.3	8.4	0.7	100.0	17,168
<u>Special Schools</u> ⁽⁴⁾											
male	11.4	11.1	21.9	17.2	9.6	7.1	6.5	13.1	2.0	100.0	4,429
female	23.4	11.7	17.3	14.8	8.1	10.2	6.0	6.5	2.0	100.0	4,425
total	17.4	11.4	19.6	16.0	8.9	8.6	6.3	9.8	2.0	100.0	8,854
<u>"Real" Schools</u> ⁽¹⁾⁽⁵⁾											
male	10.8	11.3	18.5	17.0	10.9	12.0	8.9	9.9	0.9	100.0	10,170
female	29.5	10.7	12.2	10.9	6.6	11.9	9.6	6.8	1.8	100.0	8,021
total	19.0	11.0	15.7	14.3	9.0	12.0	9.2	8.5	1.3	100.0	18,191
<u>Gymnasium Schools</u> ⁽¹⁾⁽⁶⁾											
male	11.1	17.1	17.1	12.2	5.9	13.9	15.4	6.6	0.7	100.0	31,611
female	16.2	13.7	13.8	14.1	6.6	14.4	13.0	6.5	1.7	100.0	14,061
total	12.7	16.1	16.0	12.8	6.1	14.0	14.7	6.6	1.0	100.0	45,672
<u>Part-time Vocational Schools</u> ⁽⁷⁾											
male	6.4	16.6	17.9	14.9	8.7	11.4	11.1	12.1	0.9	100.0	16,680
female	12.6	12.2	14.3	14.6	10.3	13.6	14.5	7.6	0.3	100.0	7,389
total	8.3	15.2	16.8	14.9	9.2	12.1	12.1	10.7	0.7	100.0	24,069
<u>Full-time Vocational Schools</u>											
male	6.1	15.5	16.3	11.4	6.2	12.0	13.1	15.7	3.7	100.0	3,524
female	13.0	10.4	12.6	13.3	10.0	14.1	15.1	9.5	2.0	100.0	4,175
total	9.8	12.8	14.3	12.4	8.3	13.1	14.2	12.3	2.8	100.0	7,699
<u>Technical and Advanced Technical Schools</u>											
male	5.0	11.8	17.3	14.9	8.5	16.0	11.5	13.7	1.3	100.0	3,849
female	15.5	11.3	14.7	16.0	11.3	13.8	9.6	6.4	1.4	100.0	3,180
total	9.8	11.6	16.1	15.4	9.8	15.0	10.6	10.4	1.3	100.0	7,029
<u>Colleges of Engineering</u>											
male	4.0	11.1	19.0	16.6	12.3	13.9	11.5	10.6	0.9	100.0	3,779
female	33.3	5.6	11.1	23.6	8.3	8.3	4.2	5.6	-	100.0	72
total	4.5	11.0	16.9	16.7	12.2	13.9	11.4	10.5	0.9	100.0	3,851
<u>Total: All Schools</u>											
male	15.1	12.4	16.1	13.4	8.5	10.9	9.9	12.5	1.3	100.0	154,144
female	32.0	10.1	13.9	12.5	7.7	9.9	7.3	5.6	1.0	100.0	124,725
total	22.7	11.4	15.1	13.0	8.2	10.4	8.7	9.4	1.1	100.0	278,869

(See notes to table 25 giving absolute figures)

Table 27

Percentage Distribution of Full-time Teachers by Sex in each Age-group
According to School Type, 1964

Type of Institution	Teachers Aged :									Total
	less than 30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	above 65	
<u>Basic and Main</u> <u>Schools(1)(2)</u>										
male	34.4	50.6	50.0	51.0	54.4	52.0	58.9	75.4	69.2	49.2
female	65.6	49.4	50.0	49.0	45.6	48.0	41.1	24.6	30.8	50.8
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Basic, Main, "Real" and</u> <u>Gymnasium Schools in</u> <u>the City States(3)</u>										
male	26.4	52.3	51.8	47.3	47.7	50.9	57.3	64.5	58.0	47.4
female	73.6	47.7	48.2	52.7	52.3	49.1	42.7	35.5	42.0	52.6
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Special Schools(4)</u>										
male	32.7	48.7	55.9	53.9	54.3	41.1	52.0	66.9	50.8	50.0
female	67.3	51.3	44.1	46.1	45.7	58.9	48.0	33.1	49.2	50.0
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>"Real" Schools(1)(5)</u>										
male	31.6	57.3	65.8	66.4	67.5	56.0	54.1	64.9	37.3	55.9
female	68.4	42.7	34.2	33.6	32.5	44.0	45.9	35.1	62.7	44.1
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Gymnasium Schools(1)</u> <u>(6)</u>										
male	60.5	73.8	73.6	65.9	66.8	68.4	72.7	69.8	47.7	69.2
female	39.5	26.2	26.4	34.1	33.2	31.6	27.3	30.2	52.3	30.8
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Part-time Vocational</u> <u>Schools(7)</u>										
male	53.5	75.4	73.8	69.7	65.7	65.5	63.2	78.4	88.4	69.3
female	46.5	24.6	26.2	30.3	34.3	34.5	36.8	21.6	11.6	30.7
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Full-time Vocational</u> <u>Schools</u>										
male	28.4	55.8	52.3	42.1	34.3	41.7	42.2	58.2	60.0	45.8
female	71.6	44.2	47.7	57.9	65.7	58.3	57.8	41.8	40.0	54.2
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Technical and Advanced</u> <u>Technical Schools</u>										
male	27.9	55.8	58.7	53.0	47.7	58.3	59.3	72.2	54.3	54.8
female	72.1	44.2	41.3	47.0	52.3	41.7	40.7	27.8	45.7	45.2
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Colleges of Engineering</u>										
male	86.3	99.1	98.9	97.4	98.7	98.9	99.3	99.0	100.0	98.1
female	13.7	0.9	1.1	2.6	1.3	1.1	0.7	1.0	-	1.9
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Total: All Schools</u>										
male	36.8	60.2	59.0	56.9	57.7	57.6	62.6	73.2	62.6	55.3
female	63.2	39.8	41.0	43.1	42.3	42.4	37.4	26.8	37.4	44.7
total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(See notes to table 25)

CHAPTER V

THE TRAINING OF TEACHERS⁽¹⁾

This chapter will first of all deal with the requirements for undertaking a course leading to a teacher qualification, with courses leading to teacher qualifications and finally with the number of teachers who have completed courses of training in recent years.

1. Entry Requirements to a Training Establishment (2)

The general requirement for students to be accepted to a training establishment is the matriculation examination (Reifeprüfung, which qualifies students to register at the university faculty of their choice). In addition to this, candidates who have obtained the leaving certificate of some specialised gymnasia who have graduated from a College of Engineering or other advanced technical schools or who have passed an aptitude test may be accepted to study to become basic and main school or vocational school teachers. The applicants can thus be divided into those who have passed the general matriculation examination and those who have passed a restricted form of the matriculation examination, which gives access to some forms of higher education only (fachgebundene hochschulreife as compared with the allgemeine hochschulreife). The exceptions to these requirements will be described further on.

2. Teacher Qualifications

Students must pass two examinations in order to qualify as teachers, one immediately after completing their course of study and the other after practical preparatory service in the schools. In the examinations, candidates must demonstrate that they possess both the theoretical knowledge and practical ability required to be teachers. Only after passing both examinations can teachers obtain a permanent appointment in the school service. The State examinations of one Land of the Federal Republic are recognised in the other Länder, though special rules exist for the recognition of diplomas obtained by teachers coming from the Democratic Republic of Germany. For these teachers, if their diplomas were obtained prior to May 1945, they are fully recognised, if later a supplementary examination must be taken. Even when, in some cases, teachers from the D.D.R. are exempted from taking the 1st State Examination, they must take the 2nd. This is mentioned because there is a not inconsiderable number of teachers in the German school service who have come from the D.D.R.

These remarks apply to qualifications for all types of schools, so now the particularities of the various school types will be dealt with.

(1) Taken from Chapter 23, Schulrechts-Kunde, Hans Heckel, Paul Seipp, Hermann Luchterhand Verlag, 1965.

(2) This term is used to describe all establishments whether universities, Colleges of Education, etc. where future teachers obtain their initial teaching qualifications.

3. Schools providing General Education

(a) Basic and Main Schools

The training of basic and main school teachers takes place in Colleges of Education(1) in Germany, except in the Länder of Hamburg, Hesse and Bavaria. In Hamburg they are trained in the University of Hamburg, in Bavaria in the Colleges of Education of the Universities of Bavaria (2) and in Hesse in university founded Educational Colleges (3). The differences lie mainly in the extent and type of links between the Colleges of Education and the universities. In any case, the Colleges of Education (this term will be used to describe all the institutes training teachers for basic and main schools, whether linked with the universities or not) are institutes of higher education, a status which they recovered in 1945. (During the war years, those of the teacher training institutions that had the status of institutions of higher education lost this status. In 1939 the requirement that students should have passed the matriculation examination was withdrawn.

The length of the training course is now 6 semesters (3 years) though it was 4 semesters (2 years) in some Länder up to very recently (4). The areas covered by the study are pedagogy, psychology and the basic knowledge required in the subjects taught in the schools, teaching methods, music and physical education.

During the course of study visits are made to schools and there is some teaching practice as part of the course. Students may also have to spend some time working with youth groups and clubs during their holidays.

When the course of study is completed, students take the 1st Teacher's Examination. On successfully passing the examination, the teacher may be appointed as a probationary teacher and enter the civil service on trial (Beamter auf Probe). The probationary service period lasts at least two, and not more than five, years. During this time the young teacher is expected to participate in supplementary courses and study circles in order to prepare for the 2nd Teacher's Examination. In order to obtain a permanent civil service appointment this examination must be passed.

Other rules :

- Teachers of religion require a special diploma. Graduates of theology are qualified to teach religion.
- Teachers of craft subjects, (technische lehrer) domestic science, needlework and sport have special training in Lower Saxony and the Rhineland-Palatinate. Baden Württemberg

(1) Pädagogischen Hochschulen.

(2) Pädagogischen Hochschulen der Landesuniversitäten.

(3) Hochschulen für Erziehung.

(4) Students starting their studies at the dates given below were the first to take a 3-year course.

Baden-Württemberg

SS 1965

Bayern

SS 1959

Berlin

SS 1946

Bremen

SS 1950

Hamburg

WS 1945/46 *

Hessen

SS 1948

Niedersachsen

WS 1952/53

Nordrhein-Westfalen

SS 1957

Rheinland-Pfalz

SS 1964

Saarland

SS 1962

Schleswig-Holstein

SS 1962

WS = Winter Semester

SS = Summer Semester

* Reintroduction of 3-year course.

(Frauenarbeitsschullehrerinnen) and Bavaria also train teachers for these and similar subjects. Hesse has so-called "Pädagogischen Fachinstituten" where teachers of craft subjects and music are trained in 4-year courses. The requirement to be accepted as a student for these courses of study is usually the "real" school examination or sometimes the qualification required to enter an advanced technical school (Fachschulreife). In the Länder not mentioned above, teachers for the mentioned subjects have until recently been trained along with regular basic and main school teachers. Many new courses have just, or are about to be, introduced. Regular basic and main school teachers may take supplementary examinations to qualify in craft subjects.

There were nearly 12,000 full-time teachers of craft subjects in German schools in 1964 or 5 per cent of all teachers in general schools, and data on current efforts to train more of such teachers will be given later.

- There are quite a few auxiliary teachers working in German schools now, particularly in North-Rhine Westphalia, Lower Saxony, Baden-Württemberg and very recently Schleswig-Holstein. To give an idea of the kind of training, auxiliary teachers get the programme of Schleswig-Holstein will be described.

Starting in May 1966, a 1-year course was held for 32-50 year olds. Normally, candidates were expected to have passed the matriculation examination or were accepted with lower qualifications if they had completed some vocational training. After 1 year, they obtained temporary appointments in the schools and after 2 years' successful service in the schools auxiliaries may be accepted for a full-training course at a College of Education.

North-Rhine Westphalia started earlier with the recruitment of auxiliary teachers and of the 2,344 who made up the first batch of auxiliary recruits (1), by 1967, 1,010 were attending full courses at Colleges of Education. The use of auxiliary teachers is considered a short-term measure to relieve the teacher shortage and not as a permanent means of training and recruiting teachers.

All these remarks refer to the present state of affairs, though some changes that have been introduced into some of the Länder need to be mentioned as they indicate the direction in which teacher training is moving.

More and more Colleges of Education are being granted the status of university institutions. Following the examples of Hesse and Bavaria, the 15 Colleges of Education of North-Rhine Westphalia were administratively regrouped into three independent university-rank colleges in 1965. Students will in future be able to obtain a Diploma in Education after two semesters' study following on the normal six semester course. On completing their initial six semester training course, would-be teachers will have to undergo a one-year training period (gymnasium school teachers follow a two year "Referendariat" which is what the training period is called). In 1967 the Rhineland-Palatinate announced the intention to introduce a similar scheme. By now, the training period is operational in Hamburg (from 1967), where for very many years basic and main schools have been trained in the University of Hamburg, and will be introduced in North-Rhine Westphalia shortly. The Hamburg authorities have come to the logical conclusion of these developments and in the future basic and main school teachers will have the same civil service rank and earnings as gymnasium school teachers.

(1) Table 19 which shows year by year teacher flows in basic and main schools, shows the exceptionally high addition to the teacher stock in N.W. in 1963/64. This represents the recruitment of auxiliary teachers.

(b) "Real" Schools

Berlin, Bremen and Hamburg do not separate the training of "real" school and basic and main school teachers. In the other Länder the means of qualifying as a "real" school teacher are as follows :

Baden Württemberg

Basic and main school teachers who have passed the 2nd State Examination may pass the "subject-group" examination (Fachgruppen prüfung) in two "real" school subjects. The examination is written, oral and practical

Students who have spent at least 6 semesters at a university-level institution studying two "real" school subjects may attend a College of Education for 3 semesters and then take the 1st State Examination for Basic and Main School Teachers. After 2 years of teaching they may sit for the "subject-group" examination.

One of the Colleges of Education (Ludwigsburg) began a 4-year course for the training of "real" school teachers in the winter semester of 1966/67. Of course, teachers will not graduate before 1970.

A revision of present methods of qualifying to become a "real" school teacher is being prepared.

Bavaria

Students of university institutions who have passed the subject examination, and who pass the pedagogical examination for the "real" school teaching profession following on the traineeship-period in the schools, qualify to become "real" school teachers.

Basic and main school teachers who have passed the 2nd State Examination may sit for the subject examination and the practical and oral (not written) part of the pedagogical examination for the "real" school teaching profession.

Hesse

The 1st State Examination in Hesse is common for basic and main school teachers and "real" school teachers. All teachers specialise in one subject for the 1st State Examination. After passing the 2nd State Examination, anyone who passes a supplementary examination in one subject that was not the subject of specialisation in the 1st State examination may become a "real" school teacher.

Lower Saxony

Basic and main school teachers who have completed 2-3 years of service in the schools may take the subject examination for the "real" school teaching profession. The examination (Wissenschaftliche Prüfung) is in two subjects.

After normal study of two subjects at a university institution the 1st examination is taken in the 2 subjects of specialisation. This is followed by a year of study at the Institute for the training of "real" school teachers in the Göttingen College of Education. The fields covered are pedagogy, psychology, teaching methods of the chosen subjects, etc.). After the year of study, an examination is taken in the topics covered. A third examination is taken after 2 to 3 years service in "real" schools. This is the practical examination.

North-Rhine Westphalia

After studying 2 "real" school subjects for at least 6 semesters at a university institution, candidates must pass examinations in the 2 subjects and in educational theory. This is followed by an 18-month training period which is terminated with the Pedagogical Examination for the "Real" School Teaching Profession.

Qualified basic and main school teachers may take the subject examinations after a minimum of two years service in the schools following on the 2nd State Examination.

Rhineland-Palatinate

Up to July 1966, the following regulations were in practice :

The 1st "Real" School Teacher's Examination was taken after at least 6 semesters of university study of "real" school subjects and a 2 semester course in pedagogy at a College of Education for a university. This is the basis for provisional appointment as a "real" school teacher. After two years of service in "real" schools, the 2nd State Examination is passed, leading to a permanent appointment.

Qualified basic and main school teachers who passed both the 1st and 2nd examinations can be appointed as "real" school teachers after passing examinations in "real" school subjects.

From July 1966, for candidates coming from the university, the Pedagogical Examination will be taken only after 18 months' training in the schools.

Saarland

The 1st State Examination may be taken after at least 6 semesters' university study. The 2nd Examination is in pedagogy and can be taken after at least one year of pedagogical training. The 3rd and final examination follows, at the earliest, after 3 years' service in the schools. The candidate must be at least 27 years of age.

Basic and main school teachers who have passed both State Examinations may take the "Real" School Teacher's Examination.

Schleswig-Holstein

After a 6-semester study of two "real" school subjects in university institutions the 1st Examination for "Real" School Teachers, which is a subject examination, may be taken; this is followed by an 18-month training period which is completed by taking the 2nd Examination, which is a pedagogical examination.

Basic and main school teachers who have passed both State examinations may take the "Real" School Teacher State Examination in "real" school subjects.

Students at the College of Education preparing to become basic and main schools teachers may take an extra examination in their chosen subject to become "real" school teachers. This examination is then taken at the same time as the 1st State Examination for Basic and Main Schools.

(c) Special Schools

Special school teachers are qualified basic and main school teachers who undertake further training at specific institutions for the training of special school teachers. Most courses last between 1 and 2 years, and teachers taking the courses are paid during their leave of absence from the basic and main schools. The course finishes with the Special School Teachers' Examination.

(d) Gymnasiums

Gymnasium teachers study for at least 3 semesters at a university. During this time, as a rule, students must spend several weeks attending lessons in various types of schools. Study covers pedagogy, philosophy, two major subjects and perhaps one subsidiary subject from specified groups of subjects. This stage of study finishes with the "Academic Examination" (Wissenschaftliche Prüfungs). This examination comprises a general examination in philosophy and education and an examination in the candidate's chosen subjects of specialisation. There are some differences between the Länder in how these examinations are organised. In some cases the philosophy and education examinations are held prior to the subject examinations.

Upon passing the "Academic Examination", the candidate is appointed as "Studienreferendar", the future teacher is assigned to a gymnasium school and gymnasium teacher study-circle (Studienseminar). He is expected to deepen his knowledge and obtain practical training in this two-year period. When possible, candidates should also become familiar with the work in various types of youth institutions and homes.

In order to be appointed "Assessor", which is the title given to university graduate gymnasium teachers who have passed the 2nd State Examination, candidates must pass the Pedagogical Examination. This examination covers pedagogy, psychology, teaching methods of chosen subjects, etc.

Special conditions exist for the teachers of art and music subjects (Künstlerische Lehramt). These teachers are trained in Colleges of Art or of Music. These teachers must take a supplementary examination in a subsidiary subject for the Academic Examination. Art teachers in Hesse and Lower Saxony are exempted from this stipulation.

4. Vocational and Technical Schools

The wide range both of level and type of vocational and technical education leads to similar differences in the training of teachers for these schools.

(a) Technical Schools and Schools of Home Economics

The training of technical teachers, who when qualified have the title "Gewerbe-Studienrat", takes place partly in universities or Colleges of Technology and partly in Colleges of Education and Institutes for Vocational Teachers. There are differences between the Länder. In order to be accepted for training, candidates must have passed the matriculation examination in full or have passed special aptitude tests. In some cases, people who have graduated from a College of Engineering or have other particular technical qualifications may be accepted for a course of teacher training. Another entry condition is that candidates must have had at least 1 1/2 or 2 years' working experience, and preferably have passed the Journeyman's Examinations, training lasts 6-8 semesters and finishes with the 1st State Examination for Technical Teachers. This is followed by a one-to two-year practical traineeship period, during which future teachers attend seminars and study-circles for vocational and technical teachers. The training period finishes when candidates sit for the pedagogical, i.e. 2nd State Examination. On passing this examination, teachers obtain permanent appointments as technical teachers. There are similar arrangements for the training of teachers of home economics. There are a wide variety of regulations concerning advanced technical schools and Colleges of Engineering.

(b) Commercial Schools

Teachers for commercial schools are trained at universities and Commercial Colleges. Candidates must have commercial working experience. Study is completed by taking the Commercial Teachers' Diploma. This is followed by a two-year practical training in the schools, after which the 2nd State Examination is passed, entitling successful candidates to be appointed as permanent teachers of commerce.

(c) Agricultural Schools

Teachers in schools of agriculture are trained in universities, Colleges of Education, Agricultural Academies, Institutes for Agricultural Education, etc. Candidates must have at least passed the "real" school examination, and have had several years' agricultural working experience. Study finishes when the candidate passes the 1st State Examination. This is followed by two years' practical training, after which the 2nd State Examination is passed. This leads to a permanent appointment in agricultural schools.

CHAPTER VI

THE OUTPUT OF TEACHER TRAINING INSTITUTIONS

This section is concerned with the capacity and output of institutions that train teachers and the students that attend such institutions.

The number of teachers trained depends on several factors which will be dealt with under separate headings. The factors that will be considered below are :

- (a) the length of study and success rates
- (b) the numbers qualifying to enter teacher training institutions
- (c) of the potential entrants to training institutions, the numbers that choose the teaching profession.

In 1950/51, there were approximately 8.5 thousand students training to become basic and main school teachers. By 1965/66 this figure had risen to 43.1 thousand. Whereas in the early fifties about 3 1/2 to 4 thousand teachers were qualifying to start teaching in basic and main schools, by 1965 this number reached 14 thousand. This should give some idea of the remarkable effort that has been made and is currently being made to supply the schools with an adequate number of teachers. The changes in the number of students qualifying to become gymnasium teachers has been considerable also, but nothing like that observed for basic and main schools. Data referred to in this chapter will concern only the years 1961 to 1965, for which comparable data are available.

1. Numbers Qualifying to Enter Institutions of Higher Education

The institutions training teachers (1) depend for their students on the numbers who qualify for higher education. As has been mentioned earlier, both persons passing the general matriculation examination, which entitles successful candidates to enter the field of study of their choice, and those passing a restricted form of the matriculation examination, which entitles candidates to enter specific institutions or fields of study, come into the category of persons qualifying for admittance to institutions of higher education. This number, is itself dependent on several other interesting phenomenon such as the size of relevant age-groups, the participation of different social groups in various kinds of secondary education, etc. Here concern will be limited to the size of the relevant age-group and the proportion which qualifies for higher education. In table 28, information is given on the number each year from 1961 to 1965, inclusive, who obtained qualifications that gave the right to take a teacher training course. Information on the relevant population is also included.

(1) This expression is used to refer to universities, Colleges of Education, Institutes for Vocational or Technical Education, etc.

Table 28

Numbers Qualifying for Admittance to Institutions of Higher Education 1961 to 1965

	1961	1962	1963	1964	1965	Forecast 1970
1. Full Matriculation Examination (Allgemeine Hochschulreife)	57,000	59,364	59,859	55,122	49,782	58,550
2. Restricted Matriculation Examination (Hochgebundene Hochschulreife) obtained at: commercial high school high school for girls College of Engineering advanced technical school other schools	4,243 (1,572) (1,539) (578) (227) (77)	3,669 (1,147) (1,419) (762) (258) (53)	4,215 (1,150) (1,510) (908) (282) (355)	4,310 (1,109) (1,597) (993) (260) (261)	4,537 (1,137) (1,578) (1,218) (339) (267)	8,465 (1,570) (2,360) (1,860) (640) (2,035)
3. Other qualifying procedures (aptitude tests, etc.)	1,013	962	1,200	1,313	1,587	1,865
4. Total (1 + 2 + 3)	62,354	63,995	65,274	61,745	55,906	78,880
5. Relevant Population Group % 4 of 5	248,800 6.57	687,200 7.21	836,600 7.80	765,300 8.07	706,500 7.91	757,100 10.42
6. Relative Figures: full matriculation examination restricted " other qualifying procedure	91.6 5.8 1.6	92.8 5.7 1.5	91.7 6.5 1.8	90.9 7.0 2.1	89.0 8.1 2.8	86.9 10.7 2.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

These figures show clearly, what has been already noted in an earlier context, that at the present time the children born in the years in which fewest births took place are leaving the gymnasiums and other secondary schools and entering institutions of higher education or have entered them in the most recent years. Even though the percentage of young people in the relevant age-groups which passes the full matriculation examination has not changed significantly in recent years, the numbers obtaining a limited matriculation have shown steady increase. Whereas, the numbers coming out of the gymnasiums are directly affected by population changes, the numbers obtaining the limited matriculation depend more on the development of institutions belonging to the "Second Educational Path" and the availability of opportunities for higher education for those who graduate from intermediate level institutions that did not previously give any rights to higher education, such as advanced technical schools, Colleges of Engineering, etc. The special qualification procedures such as aptitude tests, (begabtenprüfung, etc.) also come into this category. As will be seen later, the Colleges of Education have benefited most from the new educational opportunities made available to talented people who did not make the "right" choice at the age of 10 or 12. There is, no doubt, a great deal of scope for an increase in the numbers qualifying for various forms of higher education who do not directly come from the gymnasium schools, quite independently of any upward or downward movement in the size of the relevant population groups. In any case, the percentage of persons qualifying for some form of higher education who did not pass the full matriculation examination moved from 8.4 per cent of all persons qualifying in 1961, to 10.9 per cent in 1965. Particularly noteworthy is the increase in the numbers who passed aptitude tests, etc. Their numbers showed a 57 per cent increase and, as will be seen, a high proportion of them enter Colleges of Education in order to become basic and main school teachers.

In the following paragraphs, an examination will be made of how many students enter and study at establishments awarding teacher qualifications.

2. Students Preparing for the Teaching Profession

The institutions covered here will be university and equivalent institutions in which teaching qualifications are obtained, Colleges of Education and Academies of the Fine Arts. Of course, in institutions in which not only teacher training takes place, information will be limited for students who are enrolled in courses leading to a teacher qualification.

(a) New Entrants

In recent years, each year between 23 and 26 thousand people have begun courses that lead to qualifications as teachers in various types of primary and secondary schools.

Given the fact that the number of persons who qualified for higher education showed a decline between 1963 and 1964 and then again a further sharp decline between 1964 and 1966, the numbers who entered for courses in teacher training also showed a drop, particularly between 1964 and 1965. That the drop is due mainly to population factors, (the drop in numbers qualifying for higher education was mainly due to population factors as is shown in table 28) can be seen from the percentage of persons who started a course of teacher training in relation to all persons who started courses in higher education. From 1961 to 1965, this figure has shown slight deviations from 40 per cent, so that a shift in preferences for the teaching career cannot be held responsible. However, before going on to discuss the implications of the figures, the figures themselves are presented below. Two tables are shown. The first gives the number of new entrants to different types of courses leading to a teacher qualification. The second table compares those entering for courses leading to teacher qualifications with entrants to all forms of higher education.

Table 29
New Entrants⁽¹⁾ to Courses Leading to Teacher Qualifications

Type of Institution and Teacher Training	1961/62	1962/63	1963/64	1964/65	1965/66
1. <u>In Universities and Equivalent</u> ⁽⁵⁾ <u>Degree-granting Institutions</u>					
(a) Studying to be gymnasium teachers	8,350	8,510	8,440	8,020	7,380
- male	4,960	4,990	4,740	4,530	3,550
- female	3,390	3,520	3,700	3,490	3,830
arts subjects ⁽²⁾ - total	6,550	6,590	6,620	6,230	5,560
- male	3,460	3,380	3,270	3,090	2,890
- female	3,090	3,210	3,350	3,140	2,670
science subjects ⁽²⁾ - total	1,800	1,920	1,820	1,790	1,820
- male	1,500	1,610	1,470	1,440	1,450
- female	300	310	350	350	370
(b) Studying for commercial teacher's qualification	581	510	549	481	353
- male	427	380	434	368	298
- female	154	130	115	113	55
(c) Studying for technical teacher's qualification (gewerbelehramt)	219	268	332	419	345
- male	161	203	282	354	277
- female	58	65	50	65	68
2. <u>Colleges of Education</u> ⁽³⁾⁽⁵⁾					
- total	14,186	14,171	15,336	15,408	13,322
- male	5,193	4,927	5,205	5,577	5,103
- female	8,993	9,244	10,131	9,831	8,219
3. <u>Colleges of Fine Arts</u> ⁽⁴⁾					
- total	1,390	1,450	1,490	1,400	1,450
- male	780	840	870	760	820
- female	610	610	620	640	630
4. <u>Total : All higher education</u> <u>Teacher Courses</u>					
- total	24,726	24,909	26,147	25,728	23,457
- male	11,521	11,340	11,531	11,589	10,618
- female	13,205	13,569	14,616	14,139	12,839

- Notes: (1) New Entrants refers to students in the 1st and 2nd semester in the winter semester (German nationals only).
(2) The division between the numbers in arts and science subjects is estimated on the basis of past graduates who became teachers
(3) There are a few students who began courses to become special, "real" and vocational school teachers who are not included here
(4) Based on assumption that 75 per cent of Entrants to Colleges of Fine Arts become teachers
(5) Although some Colleges of Education have university status, they are listed with Other Colleges of Education

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

Table 30

The Share of Teacher Training in Higher Education

(New entrants to courses of teacher training compared with new entrants* to all forms of higher education)

*German nationals only

			1961/62	1962/63	1963/64	1964/65	1965/66
<u>New Entrants to All Forms of Higher Education</u>	- total		61,988	63,794	63,107	62,432	59,046
	- male		40,694	41,085	40,282	40,604	38,064
	- female		21,294	21,809	22,825	21,828	20,982
<u>Sex Composition of New Entrants to All Forms of Higher Education</u>	- total		100.0	100.0	100.0	100.0	100.0
	- male		65.6	65.8	63.8	65.0	64.5
	- female		34.4	34.2	36.2	35.0	35.5
<u>Sex Composition of New Entrants to Teacher Training Courses</u>	- total		100.0	100.0	100.0	100.0	100.0
	- male		46.6	45.5	44.1	45.0	45.3
	- female		53.4	54.5	55.9	55.0	54.7
<u>Share of Teacher Training in All New Entrants to Higher Education</u> (a+b+c)	- total		39.9	39.0	41.4	41.2	39.7
	- male		28.3	27.0	28.6	28.5	27.9
	- female		62.0	62.2	64.0	64.8	61.2
Distributed by school type: Courses leading to qualification as:							
(a) gymnasium school teacher							
arts subjects	- male		(8.5)	(8.1)	(8.1)	(7.6)	(7.0)
science subjects	- male		(3.7)	(3.8)	(3.7)	(3.6)	(3.8)
total	- male		12.2	11.9	11.8	11.2	10.8
arts subjects	- female		(14.5)	(14.7)	(14.7)	(14.4)	(13.8)
science subjects	- female		(1.4)	(1.4)	(1.5)	(1.6)	(1.8)
total	- female		15.9	16.1	16.2	16.0	15.6
(b) basic and main school teacher							
	- male		12.8	11.7	12.9	13.7	13.4
	- female		42.2	42.4	44.4	45.0	42.1
(c) other (fine arts, commercial, technical)							
	- male		3.3	3.4	3.9	3.6	3.7
	- female		3.9	3.7	3.4	3.8	3.5
<u>Shares of Types of Teacher Training in All New Entrants to Teacher Training:</u>							
	- gymnasium		33.8	34.2	32.3	31.2	31.5
	- basic + main		57.4	56.9	58.6	59.9	59.4
	- other		8.8	8.9	9.1	8.9	9.1
			100.0	100.0	100.0	100.0	100.0
female:							
	- gymnasium		25.7	25.9	25.3	24.7	25.4
	- basic + main		68.1	68.1	69.3	69.5	68.7
	- other		6.2	5.9	5.4	5.8	5.9
			100.0	100.0	100.0	100.0	100.0
male:							
	- gymnasium		43.0	44.0	41.1	39.1	38.8
	- basic + main		45.1	43.5	45.1	48.1	48.1
	- other		11.9	12.5	13.8	12.8	13.1
			100.0	100.0	100.0	100.0	100.0

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

This table compares, first of all, the relative preferences for the teaching profession of male and female entrants to courses of higher education. The preferences for teaching in the different school types of future male and female teachers is also considered, as well as the share of each school type in the total number of future teachers. It should be noted that students enrolled in universities to become gymnasium teachers may opt to take the 1st State Examination for "Real" School Teachers after a minimum of 6 semesters study. In the figures for new entrants and total students it is not possible to distinguish those students who intend to become "real" school teachers from those who intend to qualify as gymnasium teachers. The figures for graduates do make this distinction.

Given that there is a rather stable relationship between the number of persons who qualify for higher education and the number who actually enrol in some form of higher education, the decline in numbers qualifying for higher education, inevitably leads to a drop in the number entering for courses leading to a teacher qualification. Although the share of teacher training has been maintained, the distribution by sex and type of course of students beginning teacher training has shown some variation. The following are the conclusions that can be drawn from the tables presented.

For every female who begins a course of study at the higher education level, two males start a similar course. Yet, for every 100 females who commence a course leading to a teacher qualification, only about 80 to 85 males commence similar courses. Whereas about 28 per cent of men students will eventually become teachers, well over 60 per cent of all women students intend to take up teaching as a career.

It has always been considered that male students show a far greater interest in becoming gymnasium teachers than female students, but even this is not borne out by the evidence (1). In the five most recent years for which data are available, 16 per cent of all women who entered higher education started university courses to become gymnasium teachers. During the same five years, the percentage of men students who started courses leading to a gymnasium teacher qualification dropped steadily from 12.2 per cent in 1961/62 to 10.8 per cent in 1965/66. Thus, even for gymnasium teaching, women show a relatively higher interest. In fact, the relative preference by women for this kind of teaching is very significant indeed. In reality, what this implies is that in order to increase the number of future gymnasium teachers not only is an increase in the number of persons who qualify for higher education necessary, but, even more so, it is necessary to increase the number of girls who complete their secondary education. Whereas male students are showing less and less inclination for studies leading to a gymnasium teacher qualification, this is not the case with female students.

A rather different trend may be observed amongst students who started courses to become basic and main school teachers. Here, the share of male students amongst all male students starting courses of higher education has been higher in the last two years under review than in the previous years. In these two years in particular, the number of male students starting courses to become basic and main school teachers was considerably higher than the number starting courses leading to a gymnasium teacher qualification. As for the number of women entering courses to become basic and main school teachers, nearly half of all women who start studying in all types of higher education intend to become teachers

(1) In recent years the percentage of girls passing the full maturity examination has been around 35 per cent of the total. This shows that the proportions entering all forms of higher education is identical for young men and young women who qualify to do so. The low percentage of women students in higher education is not due to a lack of interest on the part of women, but rather to the relatively low number who complete their secondary education.

in basic and main schools, showing the enormous attraction this type of teaching has for women. The conclusion is obvious: to increase the supply of teachers, it is necessary to increase the proportion of women who pass the maturity examination. An increase in 100 male and 100 female students in higher education will bring approximately 13 male and 42 female prospective basic and main school teachers.

Finally, the shares of the different types of schools amongst future teachers deserves a few words. Whereas there has been very little change in the proportions of women students choosing the different school types, the same cannot be said of the men students. In the 5 years considered 25 per cent of the women students intend to become gymnasium teachers, about 69 per cent basic and main school teachers and 6 per cent other types. As far as men students are concerned, the proportion choosing gymnasium teaching has gone down from 43 to 44 per cent in 1961/62 and 1962/63 to 39 per cent in 1965/66. At the same time, the proportions choosing basic and main school teaching have gone up from 45 per cent to 48 per cent. The share of other types of teaching has remained steady in the region of 12 to 13 per cent. The effects of these changes in the total of all students, male and female, have been to shift about 2 per cent of the students from prospective gymnasium teaching to basic and main school teaching.

The remarks so far have been limited to higher education. There are very many new courses for teachers of craft subjects, such as needlework, handwork, domestic science, sport, etc., that do not come into the category of higher education. As there were nearly 12,000 full-time teachers trained in craft subjects (technisches-lehramt) working in primary and secondary schools in 1964, new entrants to courses leading to craft teacher qualifications will be briefly discussed. Until very recently only a few of the Länder had special training courses for teachers of the type now being considered. From 1966 onwards the new training courses, which are often of a 1 or 2 year duration only, will contribute even larger numbers of teachers to the schools. From 1961, the following number of persons began courses leading to qualifications as craft or music teachers in general primary and secondary schools :

1961/62	total	437	female	437
1962/63	"	501	"	501
1963/64	"	1,432	"	1,184
1964/65	"	1,623	"	1,265
1965/66	"	1,700	"	1,383

As was noted in an earlier chapter, most of the Länder reported major difficulties in recruiting teachers of the subjects in which the above students are being or were trained. The considerable expansion in training courses of this kind came as a response to the marked shortage of teachers of these subjects. As the courses are of short duration, success rates should be reasonably high and relief in the schools should be forthcoming in the not too distant future.

So much emphasis has been placed on the figures for new entrants to courses leading to teacher qualifications, because they indicate trends more accurately than figures for total students (1) as the total number of students is influenced by the organisation and length of different courses of study.

(1) See pages 106 to 109 of Methods and Statistical Needs for Educational Planning, O.E.C.D. 1967.

For example, there are proportionately far more total students in universities than there are in Colleges of Education when compared with the number of beginners of courses in these institutions (1).

With these remarks in mind, the number of students in courses leading to teacher qualifications is given in the table below. The share of teacher training in higher education is shown as well as student numbers from 1961 to 1965 with 1961 = 100.

(b) Educational Background of Students at Colleges of Education

Before going on to examine the number of persons who have obtained teacher qualifications in recent years, it is of some interest to take a look at the educational background of students of Colleges of Education. Based on data obtained from individual student replies to questionnaires, the background of students at Colleges of Education was seen to be as follows in table 32. These data are interesting when consideration is given to likely sources of recruitment of new teachers. Points of particular interest are the following :

- (1) There are almost as many women studying to become primary school teachers as men who came from a gymnasium specialising in mathematics and science subjects. (The lower percentage is due to there being far more women in the total, so the same absolute figure gives a smaller relative share.) In fact, the last year for which detailed information is available, 1964, shows that the percentage of girls in mathematics/science gymnasiums was less than 17 per cent in the last year of study. The data are as follows :

Pupils in Mathematics/Science Gymnasiums 1964

	<u>Total</u>	<u>Female</u>	<u>% Female</u>
9th year of study	27,127	7,140	26.3
10th year of study	25,042	6,655	26.6
11th year of study	22,133	4,901	22.1
12th year of study	15,326	2,694	17.6
13th year of study	14,287	2,385	16.7

(long-form gymnasiums)

(1) For 1964/65, the following information is available :

	<u>New Entrants</u>	<u>Total Students</u>	<u>1st Qualification</u>
<u>All Higher Education</u>	62,432	276,054	47,387
of which :			
<u>Colleges of Education</u>	15,408	42,861	12,386
% of total	24.7	15.5	26.1

These figures reflect the fact that university courses are much longer (the bulk of total students are enrolled in university and equivalent courses) and the drop-out rates are much higher, leading to a relatively larger number of students and smaller number of graduates. An analysis of total student numbers would only understate the importance of the Colleges of Education in the entire higher educational system in terms of the output of qualified persons. In 1964/65, for every new entrant to Colleges of Education, there were just under 2 other students enrolled in the Colleges. For the rest of the higher educational system there were 4 other students for every new entrant. If the number of persons who obtained a 1st qualification is compared with the total number of students, it will be seen that 29 per cent of all students who were enrolled in Colleges of Education qualified or nearly 90 per cent of those who started courses in 1961/62. Only 15 per cent of total students in other forms of higher education obtained first qualifications in 1964/65.

Table 31

(1)
Total Students in Courses Leading to Teacher Qualifications

Type of Institution		1961/62	1962/63	1963/64	1964/65	1965/66
I. Total Students in All Forms of Higher Education	: total	240,745	256,158	260,028	276,054	282,061
	: male	172,760	183,381	191,589	196,536	202,702
	: female	67,985	72,777	77,439	79,518	79,359
II. Total Students in Courses Leading to Teacher Qualifications	: total	78,927	84,520	89,190	91,781	92,368
	: male	42,351	44,169	45,856	46,603	47,783
	: female	37,576	40,351	43,334	45,178	44,585
1. in universities and equivalent institutions (a+b+c+d)	: total	39,024	41,339	43,403	43,700	44,037
	: male	25,570	27,024	28,282	28,495	28,773
	: female	13,454	14,315	15,121	15,205	15,264
(a) Science subjects	: total	9,330	9,820	10,170	10,220	10,440
	: male	8,100	8,520	8,820	8,830	9,010
	: female	1,230	1,300	1,350	1,390	1,430
(b) Arts subjects	: total	25,990	27,800	29,160	29,370	29,840
	: male	14,810	15,760	16,370	16,450	16,750
	: female	11,180	12,040	12,790	12,920	13,090
(c) Commercial	: total	3,015	2,900	3,060	2,942	2,660
	: male	2,144	2,120	2,291	2,258	2,087
	: female	874	780	769	684	573
(d) Technical	: total	686	819	1,013	1,168	1,097
	: male	516	624	801	957	926
	: female	170	195	212	211	171
2. Colleges of Education	: total	35,013	38,151	40,367	42,861	43,111
	: male	12,891	14,135	14,344	15,068	15,090
	: female	22,122	24,016	26,023	27,793	27,121
3. Academies of the Fine Arts	: total	4,800	5,030	5,420	5,220	5,220
	: male	2,890	3,010	3,230	3,040	3,020
	: female	2,000	2,020	2,190	2,180	2,200
4. Students in Teacher Courses as % of all Higher Education	: total	32.8	33.0	33.2	33.2	32.7
	: male	23.9	24.1	23.9	23.7	23.6
	: female	55.3	55.4	56.0	56.8	56.2
(a) Universities and Equivalent 1961/62 = 100	: total	100	106	111	112	113
	: male	100	106	111	111	113
	: female	100	106	111	113	113
(b) Colleges of Education 1961/62 = 100	: total	100	109	115	122	123
	: male	100	110	111	117	124
	: female	100	109	116	126	123
(c) Academies of the Fine Arts 1961/62 = 100	: total	100	103	111	107	107
	: male	100	104	112	105	104
	: female	100	101	110	109	110

(1) German nationals only.

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

Table 32

German Students and New Entrants to Courses Leading to Qualifications
as Basic, Main, "Real" and Special Schools in Colleges of Education, 1961/62 and 1965/66

Educational Background of Students	Percentage Distribution of Students by Educational Background					
	Winter Semester 1961/62		Winter Semester 1965/66			
	Total Students		Total Students		New Entrants	
	Men	Women	Men	Women	Men	Women
Classical Languages Gym.	(76	(69	18	4	17	4
Modern "	(	(	26	50	25	48
Maths. - Science "	(	(	30	16	29	16
Music	3	4	2	2	2	2
Evening gym., Colleges	2	1	4	1	4	1
Commercial High Schools	3	2	3	2	3	2
High Schools for Girls	-	(15	-	12	-	13
Other High Schools	6	(	4	4	4	4
Special Maturity Exam.	2	1	2	1	2	1
Colleges of Engineering	(1(1)	(4(1)	0	0	0	-
Girls' Technical School	(	(	-	3	-	3
Aptitude Tests	5	3	11	4	14	5
Other qualification	1	1	0	0	0	0
No information	1	0	0	1	0	1
Total	100	100	100	100	100	100
Numbers :	12,891	22,122	15,990	27,121	5,103	8,826

(1) Includes some other technical schools in addition to girls' technical schools.

Source: "Studierende an Pädagogischen Hochschulen und entsprechenden Einrichtungen in Wintersemester, 1965/66", Wirtschaft und Statistik.

These figures indicate that for every girl who completes a course in a mathematics/science gymnasium, there are 6 boys who complete a similar course. Yet there is only a marginally higher number of boys who enter Colleges of Education from such schools. Once again, it is difficult to avoid concluding that an increase in the number of girls who complete secondary education is likely to be the most fruitful source of recruitment of new teachers. As the participation of girls in mathematics/science gymnasiums is particularly low, and the need is greatest for teachers of mathematics and science subjects, it should be of great long-term advantage to encourage greater enrolment of girls in mathematics/science subjects in gymnasium schools.

- (ii) The number of persons who obtain their secondary school leaving qualifications through institutions of the "Zweiter Bildungsweg" (Second Educational Path) and then decide to become school teachers is very significant indeed. There are many reasons for this amongst which the relatively short duration of the teacher training course must be cited. Naturally, students who qualify through evening and other institutions for adults are usually older than students who qualify directly through the school system. The desire to start on a career as rapidly as possible is combined with the fact that such students generally come from social backgrounds in which entrance to the teaching profession is considered a step up in the social ladder (there is evidence to show that for many boys coming from the most advantaged social groups, teaching in the basic and main schools is not considered a satisfactory occupation; the attitudes of girls and their parents are different). So, the attempt to provide greater equality of educational opportunity is paying off an unexpected (to start with) dividend, namely that many of the successful students wish to become teachers. Given that this is a particularly fruitful source of new male recruits to the teaching profession, it is clear that any expansion of the "Zweiter Bildungsweg", apart from the fulfilment of its wider social objective of providing more equal opportunities, will also provide the educational system with the basis for its own expansion in the form of very many new teachers for the future.
- (iii) Special aptitude tests are providing an even greater number of the students of teacher training colleges. In the winter semester of 1961/62, 5 per cent of the men had passed such tests. By the winter semester 1965/66 this number had risen to 11 per cent; but amongst the newest batch of entrants it was already 14 per cent. The corresponding figures for girls were 3, 4 and 5 per cent.

(c) Age of New Entrants to Colleges of Education

As the number of students who do not enter directly from gymnasium schools has increased, so has the age of new entrants. This can be shown by comparing the age of new entrants in the winter semester of 1961/62 with those of the winter semester 1965/66.

Quite a few interesting facts can be learnt from this information on the age of new entrants to Colleges of Education. They may be summarised as :

- (1) Male students are on average quite a bit older than female students when they start their teacher training. Various explanations can be put forward for this. First of all, it has been seen in the previous section that a higher percentage of male students do not come from regular gymnasium schools. They are, of course, on average older than those students who pursue an uninterrupted school career. Some males may carry out their national service obligations before starting on

Table 33

Age of New Entrants to Colleges of Education 1961/62 and 1965/66

A g e	German New Entrants					
	1961/62			1965/66		
	male	female	total	male	female	total
<u>Number aged:</u>						
19 years and younger	355	1,543	1,898	165	1,108	1,363
20 years	1,071	3,549	4,620	498	3,026	3,524
21 "	1,091	1,835	2,926	946	2,280	3,226
22 "	853	624	1,477	1,120	859	1,988
23 "	463	306	769	685	351	1,036
24 "	211	166	377	400	272	672
25 and above	806	482	1,288	1,407	728	2,135
of whom: 35						
and above	(119)	(96)	(215)	(203)	(149)	(352)
unknown	17	18	35	26	69	95
Total	4,867	8,523	13,390	5,256	8,853	14,109
<u>% distribution</u>						
19 years and younger	7.3	18.1	14.2	3.2	13.6	9.7
20 years	22.1	41.7	34.6	9.5	35.2	25.7
21 "	22.5	21.6	21.9	18.1	26.0	23.0
22 "	17.6	7.3	11.1	21.6	9.8	14.2
23 "	9.5	3.6	5.8	13.1	4.0	7.4
24 "	4.4	2.0	2.8	7.6	3.1	4.0
25 and above	16.6	5.7	9.6	26.9	8.3	15.2
of whom: 35						
and above	(2.5)	(1.1)	(1.6)	(3.9)	(1.7)	(2.5)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median age	20.9	19.8		21.9	20.0	

Note : Figures for number of entrants differ slightly from those given in table 29 due to marginally different coverage and source of information.

Source : Statistisches Bundesamt.

their higher education. Lastly, a teaching career may not be the first choice of many of the male students. It is difficult to prove such a point, but evidence from several other countries indicates that primary school teacher training is often embarked upon after another course of study has been embarked upon and then abandoned. This has been found to be the case more often with male than female students. This factor may be of some significance when the attractiveness of the teaching profession is considered. It is not a very satisfactory situation if the primary school teaching profession is looked upon as a last resort for students who, for one reason or another, have not been able to complete other courses of study. Not only was the median age of male students a full year higher in 1961/62 than that of female students, and just under 2 whole years higher in 1965/66, but also the dispersion was much higher.

If the median age of male students was a full 2 years above that of female students in 1965/66, this also means that they will graduate a full 2 years later. There is an obvious advantage to early graduation. The younger a teacher is on graduation, the greater the number of years of professional service he can give. (This applies to all occupations, not just teaching).

- (11) The second noticeable point is that new entrants in 1965/66 were older than those in 1961/62. This is true for men as well as for women, though for the latter the increase is marginal, from 19.8 years to 20.0 years. In the case of men the median increased from 20.9 to 21.9. For both men and women, the higher number of entrants from outside the regular school system probably accounts for the increase. As far as women are concerned, the age of new entrants suggests that most of them enter immediately upon completing their secondary schooling. Unfortunately data are not available on the age and educational background of students preparing to become gymnasium teachers so comparisons cannot be made.

3. Output of New Teachers : Graduates from Courses Leading to Teacher Qualifications

Before proceeding to give actual information on teacher qualifications, a brief reminder of what these qualifications constitute is in order. The 1st State Examination is a theoretical qualifying examination taken in an educational institution. The 2nd State Examination is a practical examination leading to the right to civil servant status. In the statistical tables, 1st State Examinations are referred to as "first teacher qualifications". Comparable data are only available for recent years, but it should nevertheless be kept in mind that the numbers qualifying to be teachers are much higher now than in the early post-war years, particularly those in Colleges of Education.

The students completing courses leading to the teaching profession are compared with all graduates in higher education. This makes it possible to estimate the proportion of all graduates who enter the teaching profession. It often comes as a surprise to find out how great a share of the output of the higher educational system is fed back into the educational system in the form of teachers.

Whereas, for the total number of university students it was not possible to distinguish those who intended to qualify as gymnasium teachers from those who intended to qualify as "real" school teachers (the latter study for a shorter period of time) it is possible to do so amongst graduates. The distinction is shown below.

Table 34

Awards of First Teacher Qualifications 1961 to 1965

by Type of Qualification

Type of Qualification:		1961	1962	1963	1964	1965
All First Qualifications Awarded in Higher Education	: Total	<u>36,556</u>	<u>39,454</u>	<u>45,238</u>	<u>47,387</u>	..
	: Male	26,334	27,724	31,161	33,173	..
	: Female	10,222	11,730	14,077	14,214	..
All First Teacher Qualifications (1+2+3+4)	: Total	<u>14,026</u>	<u>16,416</u>	<u>19,456</u>	<u>19,586</u>	<u>21,957</u>
	: Male	6,333	7,319	8,735	8,780	9,533
	: Female	7,693	9,097	10,721	10,798	12,364
of which:						
1. <u>Gymnasium Teacher Qualification</u>	: Total	<u>3,421</u>	<u>3,705</u>	<u>4,027</u>	<u>4,514</u>	<u>4,952</u>
	: Male	2,342	2,521	2,615	2,935	3,282
(a+b)	: Female	1,149	1,184	1,412	1,579	1,677
(a) Academic Examination	: Total	<u>3,112</u>	<u>3,411</u>	<u>3,662</u>	<u>4,152</u>	<u>4,639</u>
	: Male	2,116	2,344	2,410	2,726	3,100
	: Female	996	1,067	1,252	1,433	1,539
arts subjects	: Total	<u>2,416</u>	<u>2,799</u>	<u>2,750</u>	<u>3,128</u>	..
	: Male	1,580	1,889	1,712	1,979	..
	: Female	836	910	1,038	1,219	..
science subjects	: Total	<u>696</u>	<u>612</u>	<u>212</u>	<u>261</u>	..
	: Male	536	455	698	747	..
	: Female	160	157	214	214	..
(b) Fine Arts Examinations	: Total	<u>309</u>	<u>294</u>	<u>365</u>	<u>355</u>	<u>320</u>
	: Male	226	177	205	209	182
	: Female	153	117	160	146	138
2. <u>"Real" School Teacher Qualification through University study</u>	: Total	<u>626</u>	<u>1,014</u>	<u>1,111</u>	<u>1,580</u>	<u>1,342</u>
	: Male	227	344	349	579	710
	: Female	399	670	762	1,001	1,239
3. <u>Basic and Main School Teacher Qualification</u>	: Total	<u>8,855</u>	<u>10,614</u>	<u>13,201</u>	<u>12,386</u>	<u>13,201</u>
	: Male	3,182	3,828	5,052	4,605	4,868
	: Female	5,673	6,786	8,142	7,781	9,033
4. <u>Vocational and Technical Teachers' Qualifications</u>	: Total	<u>1,054</u>	<u>1,083</u>	<u>1,117</u>	<u>1,106</u>	<u>1,148</u>
	: Male	582	626	712	662	733
	: Female	472	457	405	437	415
of which:						
obtained at academic institutions for commercial teachers	: Total	552	620	600	645	..
	: Male	372	453	444	492	..
	: Female	180	167	156	153	..
Non-higher Education:						
Music and Craft Teachers' Qualifications, etc.	: Total	373	420	424	423	730
	: Male	-	-	-	-	55
	: Female	373	420	424	423	675

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

Between 1961 and 1965, the number of persons qualifying to become teachers increased by 57 per cent. Gymnasium teacher qualifications increased by 42 per cent, "real" school teacher qualifications by over 200 per cent and basic and main school qualifications by 57 per cent. Only vocational and technical school qualifications showed hardly any increase at all; 10 per cent. The most remarkable increase in numbers of newly qualifying teachers is in university students who take the 1st "real" teachers' Examination after 6 semesters of study. It has not been until fairly recently that the university path to "real" school teaching has been opened; previously (this is still possible) would be "real" school teachers took a supplementary examination after qualifying as basic and main school teachers, except in those Länder where teachers qualify for both types of schools simultaneously. The enormous success of the university course suggests that, as has been suspected, the duration of a course of study is of great importance when students are deciding upon which course of study to follow. It is known that, for girls, the relatively short duration of primary teacher training courses is one of the features that make this profession so attractive. A short course of study is particularly appealing to students who cannot afford to spend too many years without earning their living. Hence, it is likely that in the coming years many young women will prefer this course of study to the longer one required to become a gymnasium teacher, especially as with the present payments structure there is more prestige attached to being a "real" school teacher than a basic and main school teacher. For young men, who for financial or other reasons find the course to qualify as a gymnasium teacher too long, the career of "real" school teacher after 3 years' university study is also likely to be very attractive.

Apart from this fact the observations that can be made on these data confirm to a very great extent what has already been noted about new entrants to courses leading to teacher qualifications. Figures will also be given about graduates showing:

- (a) the share of teacher training amongst all first graduates in higher education, and
 - (b) the preferences amongst male and female teachers for the different school types.
- The information in the table is derived from that presented in table 34.

Although women students make up approximately 35 per cent of the new entrants to all courses in higher education, they make up only about 30 per cent of the graduates (these figures have fluctuated to a minor extent but, on the whole, have remained quite stable). Nevertheless, for all courses leading to teacher qualifications the percentage of female new entrants was the same as numbers passing the 1st State Examinations, around 55 per cent. Once again, the figures show how great the preference for the teaching profession is amongst women. Whereas about a quarter of all male graduates intend to become teachers, three out of every four female graduates intend to become teachers. Again, the share of basic and main schools in the total is very high. More than half of all female graduates qualify to become teachers in these schools. As for the distribution between school types, the share of university-trained "real" school teachers has shown the greatest development. In the last year for which data are available, amongst new female teachers 10 per cent obtained such a qualification. In 1961, the corresponding figure was 5 per cent. Amongst men, too, the figure just about doubled, from 3.6 to 7.4 per cent.

Amongst new gymnasium teachers there are about 2 male teachers for every female. Amongst new basic and main school teachers and "real" school teachers these proportions are just about reversed.

Table 35

Awards of First Teacher Qualifications 1961 to 1965
Compared with all First Higher Education Qualifications

Type of Qualification:		1961	1962	1963	1964	1965
All First Qualifications Awarded in Higher Education	: Total	100.0	100.0	100.0	100.0	100.0
	: Male	72.0	70.3	68.9	70.0	..
	: Female	28.0	29.7	31.1	30.0	..
All First Teacher Qualifications	: Total	100.0	100.0	100.0	100.0	100.0
	: Male	45.2	44.6	44.9	44.9	43.7
	: Female	54.8	55.4	55.1	55.1	56.3
<u>Share of Teacher Qualifications</u> <u>in all First Qualifications</u>						
(1+2+3+4)						
	: Total	38.4	41.6	43.0	41.3	..
	: Male	24.0	26.4	28.0	26.5	..
	: Female	75.3	77.6	76.2	76.0	..
1. <u>Gymnasium Teacher</u> <u>Qualification</u> (a+b+c)	: Male	8.9	9.1	8.4	8.9	..
	: Female	11.3	10.1	10.0	11.1	..
(a) academic arts subjects	: Male	(6.0)	(6.8)	(5.5)	(6.0)	..
	: Female	(8.2)	(7.8)	(7.4)	(8.6)	..
(b) academic science subjects	: Male	(2.0)	(1.7)	(2.2)	(2.3)	..
	: Female	(1.6)	(1.3)	(1.5)	(1.5)	..
(c) fine arts subjects	: Male	(0.9)	(0.6)	(0.7)	(0.6)	..
	: Female	(1.5)	(1.0)	(1.1)	(1.0)	..
2. <u>Real School Qualification</u> (University Study)	: Male	0.9	1.2	1.1	1.7	..
	: Female	3.9	5.7	5.4	7.0	..
3. <u>Basic and Main School</u> <u>Qualification</u>	: Male	12.1	13.8	16.2	13.9	..
	: Female	55.5	57.9	57.8	54.8	..
4. <u>Vocational and Technical</u> <u>Qualification</u>	: Male	2.2	2.3	2.3	2.0	..
	: Female	4.6	3.9	2.9	3.1	..
<u>Shares of Types of Teacher</u> <u>Qualifications in all First</u> <u>Teacher Qualifications</u>						
	: Gymnasium	24.9	22.6	20.7	23.0	22.6
	: "Real" School	4.5	6.2	5.7	8.1	8.9
	: Basic and Main	63.1	64.7	67.9	63.2	63.3
	Total : Voc. and Tech.	7.5	6.6	5.7	5.7	5.2
	Total	100.0	100.0	100.0	100.0	100.0
female :						
	: Gymnasium	14.9	13.0	13.2	14.6	13.6
	: "Real"	5.2	7.4	7.1	9.3	10.0
	: Basic and Main	73.7	74.6	75.9	72.1	73.1
	: Voc. and Technical	6.1	5.0	3.8	4.0	3.4
	Total	100.0	100.0	100.0	100.0	100.0
male :						
	: Gymnasium	37.0	34.4	29.9	33.4	34.2
	: "Real"	3.6	4.7	4.0	6.6	7.4
	: Basic and Main	50.2	52.3	57.9	52.4	50.8
	: Voc. and Technical	2.2	8.6	8.2	7.6	7.6
	Total	100.0	100.0	100.0	100.0	100.0

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

It would be possible to express the additions to the teaching force made possible through the number of new graduates as a proportion of the total stock, but this does not seem a very useful step at this stage. First of all, the practical examinations have to be passed in order for teachers to obtain a permanent teaching appointment. (The number of persons passing the 2nd State Examination in recent years will be looked at below.) Secondly, the working pattern of male and female teachers is not identical. The participation rates of women in the labour force are influenced by marriage rates, birth rates and other factors such as attitudes to female employment, etc. As a far greater proportion of newly qualified teachers in present times are women than was the case in earlier years, in a later chapter a brief look will be taken at what has become to be known as the feminisation of the teaching profession.

In general, the 2nd State Examination is taken two years after the 1st. It is not too easy to make comparisons with the numbers taking the 1st Examination as all persons qualifying as special school teachers originally took the 1st State Examination for Basic and Main School Teachers. This is true for many of those who qualify as "real" school teachers also. Many of the people taking the 2nd State Examination for vocational and Technical School Teachers were recruited directly from the working world. So in this case, too, a comparison cannot be made between the numbers taking the 1st and then the 2nd State Examinations. Data for gymnasium school teachers indicate that about 90 per cent of the relevant university graduates go on to take the 2nd State Examination.

In all cases the new supply of teachers has exceeded the number of leavers, so that at least replacement needs have been covered.

An adequate number of persons qualifying for the teaching profession is the first requisite for meeting teacher requirements but this in itself is not sufficient. Once qualified, in order to increase the teacher stock, a teacher must actually take up an appointment in school. There is another point: if many of the people qualified to teach in one type of school teach in another, a mere increase in the numbers qualifying for the first type of school is not enough for these schools to alleviate their teacher shortage. The next chapter will take a look at the utilisation and occupation of qualified teachers of various kinds.

Table 36

Persons Passing the Second State Examination for Teachers by Type of School
1961 to 1965

Type of School	1961	1962	1963	1964	1965
Basic and Main Schools					
Total	5,002	5,055	5,230	5,742	2,824
Male	2,429	2,550	2,511	3,410	3,755
Female	3,373	3,516	3,769	5,332	6,069
"Real" Schools					
Total	722	855	1,034	1,417	1,653
Male	435	442	437	679	741
Female	350	414	537	738	922
Special Schools					
Total	228	331	485	500	524
Male	251	215	238	237	320
Female	137	116	177	212	204
Vocational and Technical Schools					
Total	647	942	813	1,012	901
Male	413	657	505	710	592
Female	234	275	288	302	289
Gymnasiums					
Total	2,203	2,455	2,744	3,205	3,391
Male	1,455	1,553	1,819	2,177	2,239
Female	738	332	325	1,028	1,152
All Schools					
Total	2,645	10,680	11,435	14,876	16,383
Male	5,003	5,527	5,720	7,263	7,747
Female	4,842	5,153	5,716	7,613	8,636

Source: Ständige Konferenz der Kultusminister, DOK. No. 22.

CHAPTER VII

THE UTILISATION AND DEPLOYMENT OF QUALIFIED TEACHERS

In previous chapters a considerable amount of quantitative information has been provided on estimated teacher requirements and the numbers of teachers available to meet those requirements. In this chapter an attempt will be made to find out how qualified teachers are employed in the schools, and to what extent qualified teachers do not work either in schools or at all. The importance of such information is to try to get an idea of how many of the newly qualifying teachers will be available for service in the schools. The conclusions to be drawn from analysis of this kind should be useful for designing policies encouraging future recruitment to the teaching profession.

1. The Distribution of Teachers by Type of School and their Qualifications

For the purposes of what follows it is necessary to distinguish between the schools in the City States (Berlin, Bremen, Hamburg) and the schools in the rest of the Federal Republic. For the City States only a distribution of the teachers by their qualifications is available, and this is not cross-classified by type of school in which they are teaching. The most recent year for which data are available is 1964. A summary table is given below showing full-time teachers distributed by the type of qualifications they had and the schools in which they taught in 1964. (Table 37).

In addition to the total for all schools a sub-total is shown for schools excluding the City States. This makes it possible to compare the qualifications of teachers with the schools in which they taught. All the figures in the following paragraphs exclude schools in the City States, unless otherwise indicated.

(a) Basic and Main Schools. Numerically, the number of qualified basic and main school teachers form the majority of all teachers in schools providing general education, so it is natural that more details will be given about such teachers (see particularly section II, to follow).

Qualified basic and main school teachers taught in:	Basic and Main schools %	Special Schools %	"Real" Schools %	Gymnasiums %	Total %
<u>Total</u>	<u>96.4</u>	<u>2.2</u>	<u>1.2</u>	<u>0.2</u>	<u>100.0</u>
female	45.6	1.4	0.6	0.1	47.7
male	50.8	0.8	0.6	0.1	52.3

Teachers teaching in basic and main schools were :

	<u>Total</u> %	<u>female</u> %	<u>male</u> %
qualified basic and main school teachers	90.0	42.6	47.4
" basic and main and "real" teachers	0.7	0.2	0.5
" special school teachers	0.2	0.1	0.1
" "real" " "	0.7	0.2	0.5
" gymnasium " "	0.1	0.1	
teachers of craft subjects, etc.	5.8	5.6	0.2
other	2.6	2.1	0.5
Total	100.0	50.9	49.2

It would indeed be surprising if all the qualified teachers of one school type taught exclusively in the corresponding type of school, so to find that 96.4 per cent of all qualified basic and main school teachers teaching in general schools were actually employed in basic and main schools is still a very high correspondence between qualification and field of employment. Nevertheless, this implies that about 5,000 basic and main school teachers were employed in other types of schools in 1964. Although this may be a relatively small share of basic and main school teachers, they represent a considerable proportion of teachers in special and "real" schools, as will be seen later. What is perhaps of greater interest, is that women make up a somewhat smaller proportion of qualified basic and main school teachers (47.7 per cent) than they do of all teachers engaged in basic and main schools (50.9 per cent). They also have a greater proportion of qualified persons teaching in other school types. Whereas 2.8 per cent of the qualified men taught in schools other than basic and main schools, 4.4 per cent of the qualified women did.

When looking at the qualifications of teachers employed full-time in basic and main schools, it can be seen that 90 per cent of them have the basic and main school teachers' qualification. The remaining 10 per cent of the teachers were made up of 1.7 per cent who were special school, "real" school or gymnasium (very few of the latter) school teachers. Of course, it should be remembered that there are special classes and "real" school level promotion classes held in the basic and main schools. The remaining 8.4 per cent were teachers of craft subjects and had other diverse backgrounds such as domestic science teachers, etc. It is amongst this group that the proportion of women is very high, so much so that it shows the majority of teachers in basic and main schools as women. In the two final categories, craft teachers and other teachers, there were 11,282 women and only 939 (7.7 per cent) men. These teachers are in a lower wage group than the other categories of teachers mentioned so far, so that when the role of women in the schools is considered it should be remembered that a fairly large number of female teachers in the basic and main schools occupy the positions of lower prestige ... more than 15 per cent of all female teachers compared with just over 1 per cent of the male teachers.

Table 37

Full-time Teachers by Qualifications 1964 and Type of School in which Teaching

Type of School Type of Qualification	Teachers Taught in:					Total All Schools	Total except City States (1+2+4+5)
	Basic and Main Schools	Special Schools	General Schools in City States	"Real" Schools	Gymnasiums		
Teachers are qualified to teach in:							
Basic and Main Schools	131,681	2,912	4,767	1,698	285	141,343	(136,576)
Basic, Main and "Real" Schools	1,052	352	6,871	5,550	453	14,278	(7,407)
Special Schools	315	4,657	23	-	-	4,995	(4,972)
"Real" Schools	962	-	126	7,808	525	9,421	(9,295)
Gymnasiums	105	-	3,793	657	39,846	44,401	(40,608)
Craft Subjects	8,457	-	350	1,693	1,125	11,635	(11,285)
Other	3,754	933	1,238	785	3,438	10,148	(8,910)
TOTAL (M + F)	146,336	8,854	17,168	18,191	45,672	236,221	(219,053)
Female							
Basic and Main Schools	62,339	1,856	2,667	861	162	67,885	(65,218)
Basic, Main and "Real" Schools	309	213	3,739	1,362	295	5,918	(2,179)
Special Schools	99	1,655	11	-	-	1,765	(1,754)
"Real" Schools	268	-	37	3,433	236	3,974	(3,937)
Gymnasiums	79	-	1,370	378	10,988	12,815	(11,445)
Craft Subjects	8,203	-	304	1,522	988	11,017	(10,713)
Other	3,079	701	598	455	1,392	6,535	(5,637)
TOTAL F	74,376	4,425	9,026	8,021	14,061	109,909	(100,803)
Male							
Basic and Main Schools	69,342	1,056	2,100	837	123	73,458	(71,350)
Basic, Main and "Real" Schools	743	139	3,132	4,188	158	8,360	(5,228)
Special Schools	216	3,002	12	-	-	3,230	(3,216)
"Real" Schools	694	-	89	4,375	289	5,447	(5,358)
Gymnasiums	26	-	2,423	279	28,858	31,586	(29,163)
Craft Subjects	264	-	46	171	137	618	(572)
Other	675	232	340	320	2,046	3,613	(3,273)
TOTAL M	71,960	4,429	8,142	10,170	31,611	126,312	(118,170)

Qualifications Correspond to:

- (a) Basic and Main Schools = Volksschullehramt
 (b) Special Schools = Sonderschullehramt
 (c) "Real" Schools = Mittelschullehramt
 (d) Basic, Main and "Real" = Volks- und Mittelschullehramt
 (e) Gymnasiums = Lehramt an Gymnasien
 (f) Craft Subjects = Technisches Lehramt
 (g) Other = Sonstiges Lehramt

Source: Statistisches Bundesamt, Wiesbaden (A 10/1 - 164)

(b) Special Schools

Qualified special school teachers taught in :	Special Schools %	Basic and Main schools %	Total %
Total	<u>93.7</u>	<u>6.3</u>	<u>100.0</u>
female	33.3	2.0	35.3
male	60.4	4.3	64.7

Teachers teaching in special schools were :

	Total %	Female %	Male %
qualified special school teachers	52.6	18.7	33.9
" basic and main "	32.9	21.0	11.9
" basic, main and "real" school teachers	4.0	2.4	1.6
other (craft, etc.)	10.5	7.9	2.6
	<u>100.0</u>	<u>50.0</u>	<u>50.0</u>

The very severe shortage of trained special school teachers can be gauged by the fact that only 53 per cent of the teachers in special schools had the supplementary training required for these schools. A small percentage (just over 6) of the trained special school teachers were employed in basic and main schools, presumably in schools which had special classes attached to them. There were nearly twice as many qualified men special teachers as women in 1964 and yet half of all the teachers in special schools were women. A substantial proportion of all teachers in special schools had only the basic and main school teachers' qualification, 37 per cent. Of these 23.4 per cent were women and 13.5 per cent of the total were men, including the teachers who were qualified both for basic and main schools and for "real" schools. The remainder of the teachers in special schools (10.5 per cent) had various other qualifications. Most of them were women and most of them were teachers of craft subjects and the like.

(c) "Real" Schools

Qualified "Real" school teachers taught in :	Basic and Main Schools %	"Real" Schools %	"Special" Schools %	Gymnasium %	Total %
Total	<u>12.1</u>	<u>80.0</u>	<u>2.1</u>	<u>5.9</u>	<u>100.0</u>
female	3.5	28.7	1.3	3.2	36.7
male	8.6	51.3	0.8	2.7	63.4

Teachers in "real" schools were :

	Total %	Female %	Male %
qualified basic and main school teachers	9.3	4.7	4.6
" basic main and "real" teachers	(30.5)	(7.5)	(23.0)
" "real" school teachers	(42.9)	(18.9)	(24.0)
sub-total "real"	73.4	26.4	47.0
" gymnasium school teachers	3.6	2.1	1.5
teachers of craft subjects, etc.	9.3	8.4	0.9
other	4.4	2.6	1.8
Total	<u>100.0</u>	<u>44.2</u>	<u>55.8</u>

Just under three-quarters of all the teachers in "real" schools had the requisite qualifications to be "real" school teachers, and a further 4 per cent to be gymnasium teachers. On the other hand, 20 per cent of all qualified "real" school teachers worked in schools other than "real" schools. Most of these teachers had the basic, main and "real" school qualification and were working in basic and main schools. It is likely that most of them worked in the "real" school level promotion sections of basic and main schools. Six per cent of qualified "real" school teachers worked in gymnasiums and a few worked in "special" schools. Amongst qualified "real" school teachers, men outnumbered women almost 2 to 1. Nevertheless, 44 per cent of all teachers in "real" schools were women. Once again this is due to there being a large number of women teachers employed in "real" schools who have other qualifications. Again, most of them are lesser-qualified teachers of craft subjects and the like.

(d) Gymnasiums

Qualified gymnasium teachers taught in :	Gymnasiums %	"Real" Schools %	Basic and Main Schools %	Total %
Total	<u>98.1</u>	<u>1.6</u>	<u>0.3</u>	<u>100.0</u>
female	27.0	0.9	0.2	28.1
male	71.1	0.7	0.1	71.9

<u>Teachers in gymnasiums were :</u>	<u>Total</u>	<u>Female</u>	<u>Male</u>
qualified basic and main school teachers	0.6	0.4	0.3
" basic, main and "real" "	1.0	0.6	0.3
" "real" school teachers	1.2	0.5	0.6
" gymnasium teachers	87.2	24.1	63.2
teachers of craft subjects, etc.	2.5	2.2	0.3
other	7.5	3.0	4.5
	<u>100.0</u>	<u>30.8</u>	<u>69.2</u>

Nearly all qualified gymnasium teachers taught in gymnasiums: 98 per cent. A few taught in "real" schools and a tiny minority in basic and main schools. Women accounted for 28 per cent of all qualified gymnasium teachers or little over a quarter. In spite of the almost 100 per cent concentration of qualified gymnasium teachers in the gymnasium schools, only 87 per cent of the teachers in gymnasiums were qualified gymnasium teachers. The remaining 13 per cent was made up of people with many different types of qualifications. As the idea becomes more and more accepted that teachers with other types of qualifications may be employed in gymnasiums, it is likely that the proportion of gymnasium teachers who do not have the gymnasium teacher qualification will rise. In the short run this is liable to be the principal means by which the heavy shortage of gymnasium teachers will be met.

In the last few years the use of one type of teacher to teach in other types of school has become more and more common. Special schools rely heavily on basic and main school teachers. "Real" schools draw upon basic and main schools and the gymnasiums on the "real" schools. All the schools providing general education employ a considerable number of teachers of craft subjects who are less qualified than other teachers and in recent years the use of auxiliary teachers with special short training has become widespread. Thus the rigidity of the separation between

the different school types is breaking down slowly, not only for pedagogical reasons but for practical ones as well. It is difficult not to look further ahead and see in these developments a trend towards age-group teachers (stufenlehrer) rather than teachers of a particular school type. This question will be raised later on. At present the point that needs to be made is to show that the output of teachers with various types of qualifications is not a sufficient indicator of the future supply of teachers of that kind. If the "real" schools and gymnasiums are going to experience a shortage of teachers as severe as seems to be the case at the present time, it seems obvious that these schools will recruit more and more basic and main school teachers. As the prestige of working in a gymnasium or "real" school is higher (given the present wage structure) than that of working in a basic and main school, teachers from the latter type of school may be quite easily attracted to working in "real" schools or gymnasiums even though their wages may not rise unless they obtain supplementary qualifications. In recent years programmes have been proposed whereby qualified basic and main school teachers may study for further qualifications to become gymnasium teachers. In any case, what seems likely to happen is that a smaller proportion of teachers who qualify for the basic and main schools will actually teach in schools of that type. The new supply of basic and main school teachers will be used to a greater extent to meet the needs of the other types of schools, which have not succeeded in increasing the number of newly qualifying teachers so rapidly. One effect of this may be that the early removal of the teacher shortage in the basic and main schools, which is so much taken for granted at present, will not materialise so easily after all.

The fact that teachers who are trained to teach in one type of school may eventually end up teaching in another type is by no means the only reason why the output of teachers of a particular type is not in itself enough to make judgements about the future stock of teachers. What is probably of far greater importance in the long run, is the rate of participation (or employment rate) in teaching in the schools of the persons who qualify as teachers. As is well known, the participation rates of men and women are very different; particularly the participation of married women with young children in their care is far lower than that of any other category of persons. Using data obtained from as yet unexploited material made available through the 1961 Population Census, it is time to take a look at the rates of participation as far as they can be discerned.

2. The Rates of Participation in Teaching of Qualified Teachers by Age, Sex and Marital Status of Women (1961 Population Census)

In the 1961 Census, all respondents were classified by age, sex, the type of education they had received, civil status, employment status and principal means of livelihood. This made it possible to identify people who had particular types of teaching qualifications and to study their employment patterns according to the various factors mentioned above. This also permits a comparison between the teaching profession and other persons with completed higher education and also, as far as women's participation rate in economic activity is concerned, also with all women in the Federal Republic. Here, only the persons who have the qualification as basic and main school teachers and special school teachers are considered (volksschullehramt, lehramt an sonder-und hilfsschulen). This is done to avoid introducing too much detail. The underlying sociological phenomena being the same, the analysis is unlikely to show major differences for persons qualifying to teach in different school types.

Below is presented a statistical table which shows the number of persons in the Federal Republic in 1961 who were qualified to teach in basic and main schools and in special schools. These people are divided up by sex, by age, and for women whether they were married or not. They are further divided into two groups, those who were in employment

Table 26

Persons Qualified to be Teachers by Type of Economic Activity : Participation of Women : 1961 Census

Basic, Main and Special Schools (Volksschule, Lehranst., Lehranst. an sonder- und Hilfsschulen)		Total	of whom 20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	Over 70	Unknown
I. EMPLOYED PERSONS														
Main source of income came from :														
(a) Employment														
of whom : male		80,332	3,641	7,002	3,646	11,837	8,289	8,845	5,473	12,077	12,534	1,335	107	23
of whom : female		54,244	2,644	5,593	2,689	10,485	6,161	6,069	4,365	4,160	4,223	659	297	36
of whom : married		(20,352)	(1,273)	(3,366)	(3,781)	(4,833)	(2,473)	(1,908)	(1,800)	(1,880)	(1,957)	(1,944)	(10)	(5)
total		144,576	11,685	16,595	18,335	22,322	14,450	14,914	9,838	16,257	16,757	3,279	404	59
(b) Rent, pension, interest, etc.														
of whom : male		2,017	1	7	8	25	21	12	19	61	186	1,216	462	1
of whom : female		812	6	11	15	19	30	17	26	76	115	1,500	100	
total		2,829	7	18	23	45	51	29	45	137	301	1,716	562	
(c) Unemployment insurance, etc.														
of whom : male		52	5	7	10	11	1	7	8	7	8	-	-	-
of whom : female		51	5	8	10	11	1	7	8	7	8	-	-	-
total		103	10	15	20	22	2	14	16	14	16	-	-	-
(d) Dependent														
of whom : male		25	4	7	4	2	1	1	1	1	1	1	1	1
of whom : female		1,013	19	54	125	270	169	99	85	87	60	35	10	10
of whom : married		(990)	(49)	(13)	(49)	(264)	(163)	(100)	(85)	(91)	(59)	(35)	(9)	(9)
total		1,038	23	61	129	272	173	100	86	88	60	36	10	10
All employed persons with above qualifications														
of whom : male		82,436	3,647	7,009	3,654	11,862	8,310	8,863	5,491	12,138	12,720	2,552	569	23
of whom : female		56,120	2,644	5,593	2,689	10,485	6,161	6,069	4,365	4,160	4,223	659	297	36
of whom : married		(21,254)	(1,273)	(3,422)	(3,910)	(5,110)	(2,647)	(2,006)	(1,800)	(1,880)	(1,957)	(1,944)	(10)	(5)
total		148,556	11,771	19,602	21,343	25,659	14,684	15,135	10,039	17,118	17,476	3,545	976	60
II. PERSONS NOT ECONOMICALLY ACTIVE														
Main source of income came from :														
(a) Pensions, rent, interest, etc.														
of whom : male		16,335	2,222	58	36	31	29	56	79	362	1,535	5,739	8,374	1
of whom : female		11,558	3,034	58	51	48	109	155	248	597	1,715	3,475	4,789	6
of whom : married		(829)	(332)	(4)	(7)	(20)	(135)	(231)	(327)	(559)	(1,178)	(2,555)	(1,335)	(2)
total		27,893	5,256	116	87	79	138	211	327	959	3,250	9,214	13,173	7
(b) Dependent														
of whom : male		216	304	73	36	22	5	2	-	2	5	4	8	6
of whom : female		14,573	12,740	1,487	2,644	3,108	1,321	954	758	304	1,209	1,097	736	4
of whom : married		(12,311)	(12,514)	(1,441)	(2,613)	(3,093)	(1,347)	(966)	(751)	(900)	(1,195)	(1,080)	(717)	(4)
total		14,789	13,044	1,560	2,680	3,130	1,347	956	758	306	1,214	1,101	744	8
All non-employed persons														
of whom : male		16,551	2,455	131	72	53	34	68	79	361	1,214	5,743	8,382	1
of whom : female		28,131	2,455	1,545	2,701	3,136	1,431	1,119	1,005	1,361	2,424	5,735	8,382	14
of whom : married		(2,489)	(264)	(1,445)	(2,620)	(3,113)	(1,330)	(972)	(1,005)	(1,361)	(2,424)	(5,735)	(8,382)	(5)
total		44,682	4,910	1,676	2,773	3,289	1,465	1,183	1,084	1,722	3,638	11,478	16,764	15
III. ALL PERSONS WITH GIVEN TEACHER QUALIFICATION														
of whom : male		98,987	81,741	7,132	9,740	11,229	8,348	8,936	5,600	12,513	14,368	8,295	8,351	24
of whom : female		92,251	86,543	11,211	11,338	12,379	7,801	7,386	5,524	6,470	7,222	5,566	6,142	51
of whom : married		(36,524)	(34,420)	(4,867)	(5,330)	(5,823)	(3,977)	(2,978)	(2,625)	(1,920)	(2,031)	(1,414)	(1,414)	(11)
total		191,238	168,284	18,343	21,078	23,608	16,149	16,322	11,124	18,983	21,590	13,861	14,495	75
TOTAL WITH COMPLETED HIGHER EDUCATION														
of whom : male		671,856	588,271	62,596	89,937	80,826	60,314	71,057	78,838	73,080	60,777	35,709	47,876	358
of whom : female		247,933	225,271	30,059	33,714	41,429	24,177	22,070	23,503	17,283	16,257	11,157	11,505	131
of whom : married		(170,029)	(159,351)	(13,761)	(13,777)	(24,775)	(12,372)	(10,500)	(10,121)	(5,714)	(4,562)	(2,300)	(1,745)	(81)
total		919,789	813,542	92,655	123,651	122,255	84,491	93,127	102,331	90,363	77,034	46,866	59,381	489
(a) Employed														
of whom : male		601,506	570,037	57,883	88,293	80,001	60,541	70,443	77,780	70,975	55,197	35,709	47,876	358
of whom : female		171,130	157,235	23,660	23,444	29,437	18,317	18,078	18,078	12,735	12,688	8,295	8,351	51
of whom : married		(27,577)	(26,255)	(2,229)	(2,348)	(4,116)	(2,528)	(2,263)	(2,263)	(1,431)	(1,431)	(1,431)	(1,431)	(19)
total		772,636	727,272	81,543	111,737	109,438	78,858	88,521	95,858	83,711	67,885	44,000	56,207	477
(b) Not employed														
of whom : male		70,348	18,235	1,455	1,644	525	373	608	1,058	2,104	5,580	17,381	34,531	26
of whom : female		76,735	58,024	5,303	10,260	11,392	5,860	4,843	5,947	4,554	5,580	8,469	10,242	39
of whom : married		(24,452)	(23,358)	(1,859)	(2,348)	(3,553)	(1,849)	(1,553)	(1,553)	(1,047)	(1,047)	(1,047)	(1,047)	(22)
total		147,083	76,259	6,858	11,904	12,784	11,713	10,664	12,005	6,658	11,160	25,750	44,773	65

Source: Statistisches Bundesamt
(unpublished material from 1961 census)

and those who were not economically active at the time of the census. For those who were in employment, there is a further sub-division into the main source of financial support. The same has been done for people who were not economically active. Finally, data are shown for all persons with a completed higher education, though the divisions by main source of financial support are not given for the totals. All data shown later on will be derived directly from this table unless otherwise indicated. It should be noted that as 65 years is the normal retirement age, a sub-total showing all persons aged up to 65 years is shown. This permits an estimate of the numbers who are in employment out of all people who could potentially be in employment.

3. The Participation Rates of Qualified Basic and Main School Teachers

In 1961 there were 191,000 persons living in the Federal Republic who were qualified to be basic and main school teachers and special school teachers. Of these 162,000 (85 per cent) were aged 65 or less and hence of normal employment age. There were almost as many women as men with the relevant qualifications, 81,741 men (50.4 per cent) and 80,543 women (49.6 per cent). Of the 162,284 qualified persons aged 65 and under, 144,034 (88.8 per cent) were in gainful employment of one kind or another (1). Of those gainfully employed 79,315 were men and 64,719 were women. Thus the percentage of qualified men who were in gainful employment was 97.0. The corresponding percentage of women was 80.4. If women are subdivided into those who are married and those who are not, it will be seen that 34,120 (or 42.4 per cent) of the 80,543 women were married. Of the women aged 65 and under who were not married at the time of the 1961 census, 93.7 per cent were economically active, whereas only 59.3 per cent of the married women were working. Even this figure, as will be seen, is a good deal higher than the rate of participation of married women in the economy in general. At first sight what is the most striking fact is the low percentage of qualified women who are married. It is not nearly so surprising that the marriage rates should be so low amongst the very oldest groups. At the turn of the century the unmarried women teacher was the symbol of the struggle for women's emancipation. There are also a higher number of widows in this group, who for the purposes of this classification are not counted in the category of married women. The far lower marriage rates amongst the younger age groups would seem to require some explanation.

4. Comparison of Marriage Rates :

- (a) The marriage rates of qualified teachers by age,
- (b) The marriage rates of all women in the Federal Republic by age,
- (c) The marriage rates of women with completed higher education.

The first set of figures is derived from table 38. The second set comes from the Statistical Yearbook of 1967 and is also based on information from the 1961 Census, the third comes from table 38.

(1) It will be seen shortly that by no means are all persons qualified to be teachers occupied exclusively in the teaching profession.

Percentage of women who are married

- (a) Women in population 1961
- (b) Women qualified to be basic and main school teachers and special school teachers, 1961
- (c) All women with completed higher education

<u>Aged</u>	<u>(a) Women in population</u>	<u>(b) Qualified teachers</u>	<u>(c) All higher education</u>
20 - 25	44.4	17.2	19.9
25 - 30	77.0	43.4	45.8
30 - 35	83.3	56.6	58.7
35 - 40	81.1	58.9	59.8
40 - 45	76.1	51.0	53.7
45 - 50	70.2	40.3	45.8
50 - 55	67.3	36.7	42.9
55 - 60	62.9	29.7	33.0
60 - 65	55.1	27.0	28.2

By looking at these figures it will be noticed that in every single age-group the percentage of women who have the teacher qualification who are married is considerably lower than the percentage of all women in the same age range. For the oldest age groups this probably reflects the difficulty up to recent times for women to have both a career and a normal family life. Even so, the figures for women aged 30 to 40 are rather surprising. Whereas more than 80 per cent of all the women in these age-groups were married, less than 60 per cent of the women with teacher qualifications were married. One explanation for this is suggested in a report published in September 1966, "Report of the Federal Government on the Occupational, Family and Social Position of Women"(1). On the subject of the age at which women marry, this report shows that between 1959 and 1962 only 15.2 per cent of the women who married civil servants who had a monthly net income of 1,200 marks and above were aged 25 or under. Most of the civil servants who had such an income had a university or equivalent education. The duration of higher studies in Germany makes it difficult for most university and other higher education graduates to marry young. Thus, between 1959 and 1962, 60 per cent of the women who married members of the civil service with a net income above 1,200 marks were aged 30 and over. During the same years, 75 per cent of the women who were aged less than 25 at the time of their marriage and who married civil servants, married men earning 600 marks or less monthly. As women with a completed higher education are very likely to marry men with a completed higher education this does account to some extent for the very low percentages of married women in the youngest age groups, and the average age at marriage of qualified teachers is probably higher than the age at which most women marry. As the willingness and ability of women to work after marriage is closely linked with the number of children in the family, the late age at marriage may also account to some extent for the relatively higher percentage of working married women amongst qualified teachers. The same report mentioned above shows

(1) Bericht der Bundesregierung über die Situation der Frauen in Beruf, Familie und Gesellschaft.

the high correlation between age of women at marriage and the average number of children per marriage. The following figures are quoted from the report :

Average number of children per 1,000 marriages

age of women at time of marriage

up to 21 years of age	:	2,077
from 21 to 25 years of age	:	1,937
from 25 to 30 years of age	:	1,819
above 30 years of age	:	992

As all these factors up to the present time have tended to influence the participation rate of women positively, (this is certainly not meant to be interpreted as a plea for low marriage rates, very late marriage and small families for women with high qualifications; it is just being pointed out that in Germany this seems to have been the case). It is time to ask whether such conditions will prevail in coming years.

Some reasons have already been suggested as to why a higher percentage of married women with high qualifications should be in employment than the corresponding percentage of all married women.

5. Comparison of Participation Rates of Married Women :

(a) % of married women with basic and main, special school teacher qualification who were in employment. 1961 Census.

(b) % of all married women in employment. Microcensus 1966.

<u>Married Women Aged :</u>	<u>% employed (i) teachers</u>	<u>% employed (ii) all women</u>
20 - 25	83.1	51.5
25 - 30	70.3	40.1
30 - 35	59.9	36.5
35 - 40	62.1	37.4
40 - 45	66.6	41.3
45 - 50	67.4	39.9
50 - 55	60.6	36.3
55 - 60	49.2	29.6
60 - 65	32.2	19.8
	total (59.3)	

These figures make it clear that the difference is indeed very great. A far larger proportion of married women teachers in all age-groups stay in employment than of married women in general. Certainly the above average earnings must play a role in this as well as the relatively late age of marriage, etc. Another very important reason needs to be mentioned. This is job satisfaction. It is widely considered that young girls enter the teaching profession because it is a "nice" profession requiring a relatively short period

of study. Thus it provides a suitable method of spending a few years between school and founding a family (1).

Whatever the motives of people may be at the time of choosing a course of study, it is quite likely that many women enjoy teaching once they start work in the schools. For this reason it is not quite accurate to judge the future work patterns of young people from their response to questions about how they envisage their career and working life.

Nevertheless it should be remembered that 2 out of every 3 persons qualifying to be basic and main school teachers in recent years have been women. This ratio is not likely to alter much in the coming years. If anything, the share of women may increase further. All over Germany the average age at marriage is declining slowly but steadily (2) and this is bound to have some impact on the age at which people with a higher education marry as well. Also the share of women with higher qualifications who are married is likely to be much higher amongst the new young teachers than it is amongst the older groups. This will mean that even with a fairly high participation rate of married women, in the region of 60 to 70 per cent, there will still be very many qualified women teachers who will not be working. If the assumption is correct that very many of them will not want to leave the labour force permanently, then it becomes very important for their return to teaching to be facilitated. In many countries today, the introduction of schemes enabling willing married women teachers to return to the schools when their family responsibilities have been filled, is one of the corner stones of an active and meaningful policy to secure an adequate supply of teachers. It is often forgotten that a woman who has had the experience of looking after her own children brings back to the schools, particularly the primary schools, valuable qualities that may go a long way towards compensating for the temporary absence from practical school work. In the next chapter a few words will be said on the topic of the return of women to teaching, which is certain to be of increasing importance for German schools in the coming years.

6. Other Factors Regarding Utilisation and Deployment of Qualified Teachers (Census 1961)

Leaving the subject of the participation rates of women, there are several other interesting facts to be drawn from the information provided by table 38. These facts are considered below.

(a) Age of retirement

The normal age of retirement is 65 years. Early retirement with a corresponding cut in pension is possible. It is also possible to continue working beyond the normal age of retirement.

From table 38 it can be seen that 3 1/2 thousand persons aged 65 - 70 years with the qualification of basic, main and special school teacher were in employment in 1961. This is just over a quarter of the total who had this qualification in that age-group. Another 1,000 persons aged over 70 years were in employment or 6 1/2 per cent of those living who had the relevant qualification. Most of these teachers derived their main source of income from pensions, rent or interest so it can be assumed that they were working part-time only. Men worked to a far greater extent beyond the normal age of retirement. Thirty-one percent of the men aged 65 to 70 were in employment, whereas only 18 per cent of the women were.

(1) See Peter Porsh "Der Lehrermangel". Verlag Julius Beltz. Weinheim und Berlin, 1967.

(2) Between 1950 and 1965 the average age at marriage of single men declined from 28.1 years to 26.0 years and that for single women from 25.4 to 23.7 years. Statistisches Jahrbuch 1967.

Many teachers retire prior to reaching the age of 65. In table 38, those persons in the oldest age-groups up to age 65 who were not in employment and who derived their main source of income from pensions, rent, etc. may be considered to be persons who have elected early retirement. Of course, there will be some women who have retired early, but who nevertheless derive their main source of support through dependency on their husbands, etc. These people will have to be ignored for present purposes.

In the age-group just preceding the normal retirement age, i.e. persons aged 60-65, there were 1,535 men and 1,715 women who derived their principal income through pensions, etc. In the age-groups 55-60, there were 362 men and 597 women in the same category. Naturally the younger the age-group the fewer the number of persons in the category being considered here. For the age-group 60-65, 10.7 per cent of the qualified men were already in retirement and 22.8 per cent of the women, thus confirming the fact that not only do a greater percentage of men continue to work beyond the normal age of retirement, but that a greater share of women elect early retirement. For the age-group 55-60, 2.9 per cent of the qualified men were in retirement and 9.2 per cent of the qualified women. Even at age 50-55, 4.5 per cent of the qualified women were already deriving their main source of income through some sort of pension, etc. These higher figures for women almost certainly reflect a number of persons living on widow's pensions and hence they should not strictly be included as having elected early retirement. In spite of these difficulties it seems evident that early retirement is more common amongst women than men. By 1971 there will be an equal number of qualified male and female teachers in even the oldest age groups. (In 1961 there were the same number of males and females with the relevant qualifications aged 50-55. They will be aged 60-65 in 1971. Amongst those aged 55-65 in 1961, who will have retired by 1971, there were 2 qualified males for each qualified female.) Thus with the same tendency to continue working beyond the normal age of retirement or to elect early retirement of males and females, there will be a shift from the balance currently existing (there were almost as many working after age 65 as there were who retired early) to a sort of deficit. There will be more persons choosing early retirement than persons choosing to work beyond age 65. This may be considered a good or bad development depending on one's point of view. There are many people who hold that beyond the age of 65 (or earlier) people are not physically fit to cope with the effort required for teaching, nor are they liable to respond flexibly to the changing needs of the schools. Others consider that an adequate supply of teachers is of the utmost importance and that the physical and mental factors are secondary. This is perhaps a somewhat futile discussion as everybody knows people of 70 who are both physically and mentally very active and others aged 50 who are prematurely senile.

(b) Occupation of persons with teacher qualifications

The data in table 38 indicate the number of persons who had the basic and main school teacher's qualification and the special school teacher's qualification and how many of them were in employment and how many were not in 1961. What it did not indicate was the occupation followed by people with the relevant qualifications who were in employment. It may easily be assumed that they were all occupied as teachers in the schools of the Federal Republic. This is not, in fact, the case. It has already been noted that teacher's with a qualification to teach in a particular type of school are not always engaged to teach in precisely that type of school. Many of them are not employed as teachers at all. In tabulations derived from the 1961 census for people with the same qualifications - the basic and main school and special school teachers' qualifications - it can be seen that the most varied and diverse occupations are followed by persons with the relevant qualifications. It would be possible to go into great detail in this

matter and enumerate the various occupations and the number of qualified male and female teachers who are engaged in them, distinguishing age, etc. As no particular purpose would be served by this, except as a matter of interest and curiosity, it will not be done. Nevertheless, the global sums of the persons employed outside the teaching profession will be given as this provides some insight into the number of newly graduating teachers who may be lost to the teaching profession altogether. The data are summarised below.

Table 39

Occupations of Persons with Teacher Qualifications, 1961

	<u>Male</u>	<u>Female</u>	<u>Total</u>
I. All persons in employment with qualification of basic and main school teacher or special school teacher, 1961.	82,436	66,120	148,556
(a) employed in education and teaching	78,403	62,889	141,292
(b) employed outside educational sector	4,033	3,231	7,264
in relation to total	5%	5%	5%
II. Principal occupations outside education			
(a) commerce, trade	618	233	851
(b) administration, office-work, related	1,694	1,081	2,775
(c) dependants assisting members of family	101	889	990
	<u>2,413</u>	<u>2,203</u>	<u>4,616</u>
(a) (b) and (c) as % of total occupied outside educational sector	60%	68%	64%

Source : Unpublished Data from 1961 Census.

From the information above it can be seen that 5 per cent of all those employed who had a given teacher qualification were employed in occupations quite external to the educational system. The rate is the same for men and women and the major fields of alternative employment found by persons qualified to be teachers were in commerce and office and administrative work. There were many women engaged in helping members of their family also. These three areas of employment accounted for 60 per cent of the men and 68 per cent of the women who were not teaching. The rest were distributed over a wide variety of occupations. There is no reason to suspect that this figure of 5 per cent does not give a good idea of the long-term rate of qualified teachers of the type under question who will straightaway or eventually enter occupations other than teaching. However, whereas the participation rate of women for the kind of schools mentioned can be taken as a very good indicator of the participation rate of all types of qualified women teachers, because the same underlying social factors are operating, the same cannot be said of alternative

employment patterns. Without specific data to show it, it is difficult to demonstrate, but there are almost certainly a higher rate of qualified gymnasium school teachers in other occupations than teaching than there are primary school teachers. The reason for this is that the demand for university graduates of certain kinds is great in many different occupations. A gymnasium science teacher is almost different occupations. A gymnasium science teacher is almost certain to have many other openings available to him than just gymnasium teaching. A specialist in classical languages, of course, will not have such a wide variety of choice. The implication of this is that to know about alternative occupations of qualified teachers, investigations have to be made for each school type. A brief reminder should be given, that of the 95 per cent of the qualified employed teachers who were employed in the educational sector, not all of them were employed in basic and main schools or special schools. Unfortunately the data do not permit the breakdown between these schools and other types of schools to be made.

(c) Basic and main school teachers, special school teachers in relation to all persons with completed higher education

In an earlier section the role of basic and main school teacher training in all higher education for the most recent years was considered. With the aid of the information provided by the 1961 census it is possible to look at this question from a more long-term point of view. The 1961 Census indicated that there were 920,000 people in the population at that time who had completed some form of higher education. Amongst the 920,000 people, 814,000 were aged 20 to 65, or of normal working age. In the paragraphs below only persons aged 65 or less will be dealt with. There were 588,271 men with a completed higher education in 1961 aged 20-65 and 225,271 women. These figures include the persons qualified to be basic and main school teachers and special school teachers. The percentage of all persons with a completed higher education who were basic and main or special school teachers was as follows :

Percentage of persons with completed higher education in 1961 who had basic and main school teacher or special school teacher qualifications

<u>In 1961</u>	<u>% of men</u>	<u>% of women</u>	<u>% of total</u>
aged 20 - 25 (1)	31.1	57.7	47.3
25 - 30	11.4	37.3	19.8
30 - 35	10.8	34.2	17.2
35 - 40	14.8	33.7	21.2
40 - 45	13.7	32.3	19.0
45 - 50	12.6	32.2	17.4
50 - 55	7.1	23.4	10.9
55 - 60	17.1	37.4	21.0
60 - 65	23.6	46.3	28.4
20 - 65	13.9	35.8	19.9

It is clear that the interest of women in teaching is no new phenomenon. Except for the age-group 50-55 (corresponding approximately to those who graduated in the depression years 1926-1931) at least a third of all women who have completed some form of higher

(1) High percentages for 20-25 year age-group due to relatively earlier age of graduation of teachers from Colleges of Education.

education have chosen to qualify as primary or special school teachers. These figures may be compared with those of the current output of the educational system which were given earlier. These figures showed that around 14 per cent of the first qualifications obtained by men and 57 per cent of those obtained by women between 1961 and 1965 were qualifications as basic and main school teachers. Eventually, some of these students will become "real" school teachers, but certainly not a very high percentage of them. These comparisons show that over a very long time horizon the proportion of men who obtain qualifications as basic and main school teachers, out of all higher education qualifications obtained, has changed very little. The same cannot be said of women. In the most recent years a far higher proportion of women obtaining higher education qualifications have obtained the basic and main school teacher's qualification. The average for all women aged 20-65 in 1961 who had some higher education was 36 per cent. In the five following years it was 57 per cent of all first awards. This suggests that the campaign to encourage gymnasium school leavers to become elementary school teachers found a far more favourable echo amongst girl school leavers than it did amongst the boys (1).

The data on marriage rates and participation in the labour force of women teachers certainly contain some elements of surprise. It is, therefore, of interest to see whether the same situation applies amongst other women who have a completed higher education, or whether some specific sociological factors were operating to keep the marriage rates amongst primary school teachers down. If the number of basic, main and special school teachers are subtracted from the total of all persons with a completed higher education in table 39, the following results are obtained :

Table 40

Women with Completed Higher Education in 1961 by Marital Status
and Age, Excluding Basic and Main School Teachers, Special School Teachers

Age	Total	of whom		Total in Employment	of whom	
		married	not married		married	not married
20 - 65	144,728	71,261	73,467	102,528	35,804	66,724
20 - 25	6,642	1,560	5,082	5,335	935	4,400
25 - 30	18,848	8,894	9,954	13,994	4,872	9,122
30 - 35	22,176	13,267	8,909	14,627	6,038	8,589
35 - 40	27,450	16,552	10,898	18,654	8,106	10,548
40 - 45	16,376	8,995	7,381	11,947	4,879	7,068
45 - 50	15,533	7,522	8,011	11,809	4,257	7,552
50 - 55	18,069	8,096	9,973	13,128	4,051	9,077
55 - 60	10,819	3,794	7,025	7,766	1,735	6,031
60 - 65	8,735	2,551	6,184	5,213	917	4,296
age unknown	80	30	50	55	14	41

Source : Statistisches Bundesamt (unpublished material from 1961 census).

- (1) The greater inclination of girls for teaching in the basic and main schools is borne out by a survey made in 1964 by Professor Udo Undeutsch into the reasons of gymnasium school leavers for choosing or rejecting basic and main school teaching as their future occupation. See : Udo Undeutsch "Motive der Abiturienten für die Wahl oder Ablehnung des Volksschullehrersberufs". Max-Traeger-Stiftung 1964.

Table 41

Comparison of Marriage and Participation Rates of All Women with Rates
of Women with Completed Higher Education by Age

1961

Aged:	in age-group who are married			married women in employment			non-married women in employment		
	All women	women with completed higher education		All women	women with completed higher education		All women	women with completed higher education	
		basic and main, special school teacher qualification	all other higher education		basic and main, special school teacher qualification	all other higher education		basic and main, special school teacher qualification	all other higher education
20 - 25	44.4	17.2	23.5	42.0	63.1	59.9	90.2	98.4	86.6
25 - 30	77.0	43.4	47.2	38.9	70.3	54.8	89.9	98.4	91.6
30 - 35	83.3	56.6	59.0	36.2	59.9	45.5	86.3	98.4	96.4
35 - 40	81.1	56.9	60.3	31.9	62.1	49.0	81.9	98.6	96.6
40 - 45	76.1	51.0	54.9	37.8	55.6	54.2	69.9	97.4	95.8
45 - 50	70.2	40.3	43.4	35.6	67.4	56.6	58.0	96.7	94.3
50 - 55	67.3	36.7	44.8	31.7	60.6	50.0	51.3	94.0	91.0
55 - 60	62.9	29.7	35.1	26.6	49.2	45.7	43.2	88.4	85.9
60 - 65	55.1	27.0	29.2	18.4	32.2	35.9	23.8	71.8	69.5
20 - 65	68.1	42.4	49.2	34.9	59.3	50.2	64.0	93.7	90.8

Note: The category "non-married" includes single, divorced and widowed women. The number of widowed women is particularly high in age groups 45 and above. There were 18.3 million women aged 20 - 65 in 1961. Of these 12.4 million were married and 5.8 million were not. There were 8.1 million in employment, of whom 4.3 million were married and 3.7 million were not. Corresponding figures for women with completed higher education can be obtained from previous tables.

Source: Statistisches Bundesamt, unpublished results of 1961 census for women with completed higher education. Published results of 1961 census for all women. Statistisches Jahrbuch 1966.

Before comparing these data with those of basic and main school teachers and all women in Germany, a word should be said about the types of employment followed by women in the table above. A large proportion of the persons listed above are teachers in institutions other than basic and main or special schools. The 1961 census shows that 63.5 per cent of all working women with a completed higher education were teachers in universities, gymnasiums, vocational schools, basic and main schools, "real" schools or special schools. From table 38, it can be calculated that 38.6 per cent of all working women with a completed higher education, had the basic and main school or special school teacher qualification. This means that of the 61.4 per cent who did not have the basic and main school or special school teacher's qualification, 36.5 per cent worked outside the educational system and 24.9 per cent taught in various types of educational institutions. Thus about 40 per cent of the people covered by table 40, were teachers qualified to teach in institutions other than basic and main schools or special schools. So the information provided has an interest apart from the comparison with basic and main school and special school teachers.

The conclusions to be drawn are as follows :

- (i) Marriage rates are far lower for women with a completed higher education than for all women. The differences are just as striking for the youngest as for the oldest women. Women with the basic and main school or special school teacher's qualification have the lowest rates of all, though the difference between them and other women with a completed higher education is not very great in most age-groups. As about 40 per cent of the women in the "all other higher education" group are also teachers, it would ideally be interesting to identify them separately, but at present this is not possible.
- (ii) The order is reversed for the percentage of married women who are in employment. The highest rates are found amongst women with a basic and main school or special school teacher's qualification. They are followed by other women with a completed higher education, though the rates are already quite a bit lower. Again it would be of interest to distinguish the teachers in this group from women in other occupations, but this cannot be done. The percentage of all married women who are working is much lower than for the women with completed higher education. This suggests that the idea of married women working is far more acceptable amongst families in which the members have had some higher education. As has been mentioned earlier, greater job satisfaction and higher earnings also play a part in this.
- (iii) The participation rate of non-married (single, widowed, divorced) women follows the same order as that of married women. Basic and main school teachers or special school teachers have the highest rate, followed closely by other women with a completed higher education. The rate for all women is very much lower and amongst women aged 45 and above it is even lower than the rate of married women with the basic and main school or special school teacher's qualification. This reinforces considerably the argument that working is far more acceptable socially amongst women who have a completed higher education, whether they are married or not.

Whatever the case may be, these figures would seem to refute the argument often heard that women only enter teaching temporarily as a convenient means of spending a few years before settling down to the serious business of founding a family. In Germany, at least, this proposition does not seem to hold. This also means that policies designed to encourage the return of married women to teaching when their family situation permits it should prove very successful.

CHAPTER VIII

WORKING CONDITIONS AND WAGE POLICY

This chapter will be concerned mainly with matters that affect the terms of appointment and earnings of teachers compared with other segments of society, where such comparisons are available. Indirectly the question of policies that are likely to attract more people to the teaching profession will be raised.

In an earlier chapter, the means by which a teacher obtains a permanent appointment were described. After passing the 1st State Examination, which is a theoretical examination, in a College of Education or at a university, a would-be teacher has to undergo a period of practical training and then pass the 2nd State Examination. In the case of gymnasium teachers the preparation for the 2nd State Examination takes place in special "Study Seminars". During the time the future teacher is following the practical part of his training in a "Study Seminar", he/she is known as a "Referendar" and the period of training as the Referendariat. The basic and main school teacher does his/her practical training in the schools through teaching (1). The Referendar also has some light teaching obligations. After passing the 2nd State Examination the successful candidate satisfies most of the conditions necessary for a permanent civil service appointment. (Other conditions are satisfactory health, German nationality, a minimum age of 27 years, sometimes a probationary period is also required, etc.). Teachers are civil servants of the Länder or of local authorities, though there are very few in the latter category.

1. The Position of Teachers within the Civil Service Structure (2)

"Running parallel to the organisation of administrative structures, there are three

(1) The "Referendariat" has recently been introduced in some Länder for basic and main school teachers also.

(2) The following paragraph is quoted directly from Hans Heckel, Paul Seipp: "Schulrechts-Kunde". Hermann Luchterhand Verlag, 1965. Page 153.
" Innerhalb des Berufsbeamtentums unterscheidet man Laufbahnen, ausgehend von der Organisation der Verwaltungsbehörden, wo es drei grosse Funktionsgruppen gibt: die anordnende (höherer Dienst), die ausführende (gehobener und mittlerer Dienst) und die manuell tätige (einfacher Dienst). In dieses Schema sind auch die Lehrer eingegliedert. Die Lehrer der Gymnasien und in steigendem Masse auch der Beruflichen Schulen gehören der Laufbahn des höheren Dienstes an, die ein abgeschlossenes Hochschulstudium zur Voraussetzung hat, die übrigen Lehrergruppen der des gehobenen Dienstes; einzelne Gruppen technischer Lehrerinnen sind dem mittleren Dienst gleichgestellt. Die Unterschiedliche Einordnung wäre berechtigt wenn die Lehrergruppen in Vorbildung und Tätigkeit wesentlich verschieden wären. Zwar unterscheiden sich die Tätigkeiten der Lehrer der einzelnen Schulstufen und Schularten dadurch, dass die Schüler jünger oder älter sind; dass Stoffe und Methoden voneinander abweichen und dass ein verschieden grosses Mass an pädagogischem Können und Fachwissen verlangt wird. Niemand aber kann sagen, dass der Unterricht von Schülern der unteren Volksschulklassen weniger wichtig, weniger schwierig oder weniger verantwortlich sei als der Unterricht in der Oberstufe des Gymnasiums. Das Schulwesen unterliegt anderen Strukturgesetzen als die Verwaltung. Es gibt in ihm nicht nach Funktionen oder Verantwortung unterschiedene Beamtengruppen, sondern immer nur Lehrer, die in eigener Verantwortung unterrichten und erziehen. Auch in bezug auf die Vorbildung ist ein Vergleich mit anderen Beamten nicht möglich; während für die Laufbahn des gehobenen Dienstes der Realschulabschluss grundsätzlich ausreicht, muss der Lehrer in der Regel die Reifeprüfung abgelegt und ein mehrsemestriges Studium absolviert haben. Die Eingliederung der Lehrerschaft in die traditionellen Laufbahnen der übrigen Beamten und die Folgerungen, die daraus für die Besoldung noch immer gezogen werden entsprechen daher nicht mehr den heutigen Verhältnissen.

types of career open to members of the professional civil service based on three groups of functions. They are the higher echelon (höherer Dienst) for persons with the function of management and direction, the intermediate and middle echelons (gehobener und mittlerer Dienst) for persons with executive functions and the lower echelon (einfacher Dienst) for persons engaged in manual labour. Teachers are also classified within this framework. Gymnasium teachers, and now to a greater extent, teachers of vocational and technical schools belong to the higher echelon of the civil service, which has as a pre-condition a completed higher education. The remainder of the teachers belong to the intermediate echelon of the civil service and some teachers of craft subjects even belong to the middle echelon of the civil service. There would be some justification for these differences in classification were there an equivalent difference in the previous educational achievements and professional activity of the various groups of teachers. Of course, there are differences between the activities of teachers of the various levels and types of schools in that the pupils are younger or older, that subject matter and teaching methods vary, some cases requiring greater pedagogical insight and some a wider subject knowledge. However, no one can assert that the instruction of children in the lowest grades of the primary school is less important, less difficult or involves a lesser degree of responsibility than instruction in the highest degree of the gymnasium. The school system does not have the same underlying structure as administration. In the school system separate groups of civil servants cannot be distinguished either according to function or according to a greater or lesser degree of responsibility. There are, rather, only teachers who instruct and educate under their individual responsibility. Even as far as previous educational achievements are concerned, a comparison with other civil servants is not possible. In order to obtain an appointment in the intermediate echelon of the civil service, the usual educational requirement is the leaving certificate of the "real" school. The teacher must, as a rule, have obtained the leaving certificate of the gymnasium and then have spent a few years at a College of Education or university. The inclusion of the teacher corps in the traditional career groups of other civil servants and the consequences that follow from this as far as teachers' earnings are concerned no longer correspond to present-day conditions". (Translated directly from footnote (2) page 119.)

The paragraph cited above summarises briefly what is, without doubt, the most controversial topic of all as regards the status and earnings of teachers. It is certain that the hierarchical ranking of different types of teachers affects both the image that teachers have of themselves and the image of teachers in the outside world. Understandably, but perhaps regrettably, gymnasium teachers are very jealous of their privileges, the principal one of which is their belonging to the "höherer Dienst" whilst their colleagues in the basic, main, special and "real" schools belong to the "gehobener Dienst". The attitudes of the "Philologenverband", the Gymnasium School Teachers' Association, towards other school teachers are very much coloured by the difference of prestige in which the different levels of the civil service are held.

2. Salaries

Of course, classifying teachers into different ranks means that there are differences in salaries as well. Below, summary data are shown for recent years of the developments in the basic wage scale for the various types of teachers. In order not to give too many details that would be too confusing to be meaningful only the categories of teachers and school heads are shown. There are many intermediate ranks and the titles teachers hold vary from one land to another. As their grading also varies to a small degree, in each case the rank is shown in which the majority of the teachers of that particular type are classified.

Table 42

Starting Salaries of Teachers and School Principals 1961 to 1966 by School Type

(Base Wage Only)

	1961		1963		1965		1966	
	wage group	monthly base wage	wage group	monthly base wage	wage group	monthly base wage	wage group	monthly base wage
1. Teachers								
Basic and Main Schools	A10	586	A10	658	A11	808	A11	890
Special Schools	A10a, A10b	649	A10a, A10b	724	A12	877	A12	980
"Real" Schools	A10a, A10b	645	A10a, A10b	734	A12	872	A12	966
Gymnasiums	A13	854	A13	940	A13	1,019	A13	1,100
Technical, Vocational Schools	A11, A11a	747	A11, A11a	833	A12, A12a	942	A13	1,042
Colleges of Engineering	A13	858	A13	956	A13	1,059	A13	1,149
Teachers of Craft Subjects in Basic and Main Schools	A 9	518	A 9	570	A 9	616	A 9	641
2. School Principals								
Basic and Main Schools	A11	715	A11	795	A12a	948	A12a	1,041
Special Schools	A12	767	A12	864	A13	1,029	A13	1,119
"Real" Schools	A12, A13	795	A12, A13	873	A13	1,060	A13, A13a	1,163
Gymnasiums	A15	1,035	A15	1,133	A15	1,252	A15	1,365
Technical, Vocational Schools	A13, A14	865	A13, A14	964	A14	1,038	A14	1,212
Colleges of Engineering	A15	1,070	A15	1,193	A15	1,294	A15	1,447

Source: Ständige Konferenz der Kultusminister, DOK. No. 23.

Starting Salaries of Teachers, 1961 = 100

	<u>1961</u>	<u>1963</u>	<u>1965</u>	<u>1966</u>
Basic and Main School Teachers	100	112	138	153
Special School Teachers	100	112	135	151
"Real" School Teachers	100	114	135	150
Gymnasium School Teachers	100	110	119	129
Craft Subject Teachers in basic and main schools	100	110	110	124
Technical Vocational School Teachers	100	112	126	9
Colleges of Engineering, Lecturers	100	111	123	134

In order to give an idea of the range of earnings within each wage group the following data are shown for the initial and final monthly earnings of Federal Civil Servants (the L nder wage scales are almost identical for persons in the same wage group) as of October 1966. The figures include local allowances and in the case of married civil servants, allowances payable to civil servants with one child. This gives a better picture of real earnings in the schools. Figures are shown for persons classified in wage groups A9 to A15 as it is in these groups that all teachers and heads of schools are placed.

Monthly Earnings of Federal Civil Servants
in Wage Groups A9 to A15, as of October 1966

Deutsch Marks

Wage Group	Starting Payment		Final (Highest) Payment	
	Single (1)	Married (2)	Single (3)	Married (2)
A 9	846.32	984.32	1,254.72	1,334.72
A10	917.65	1,055.65	1,455.89	1,535.89
A11	1,066.98	1,204.98	1,657.06	1,737.06
A12	1,157.80	1,295.80	1,799.84	1,879.84
A13	1,316.54	1,463.54	1,967.58	2,047.58
A14	1,397.68	1,544.68	2,230.40	2,310.40
A15	1,569.61	1,716.61	2,454.29	2,534.29

Local Allowance (Ortsklasse) "S".

- (1) Local allowance for persons aged 40 or less.
- (2) Including allowance for 1 child.
- (3) Local allowance for persons aged over 40 years.

Source : Statistisches Jahrbuch 1967.

By comparing the above data with the information given on starting salaries excluding allowances, it will be noted that earnings are considerably higher when allowances are included.

3. Comparison of Teachers' Salaries with Changes in Cost of Living and Gross Domestic Product at Constant Prices

When trying to evaluate how teachers' salaries have evolved in relation to other salaries, some problems arise. First of all, no information is available of earnings of other professional groups. There is some information on the earnings of employees in commerce and industry, but the nature of the work done by such employees is not strictly comparable with that of teachers. Nevertheless, as this is the only information available it is given below :

Table 43

Gross Average Monthly Earnings of Employees in Commerce and Industry, October 1966

Deutsch Marks		
<u>Achievement Group</u>	<u>Men</u>	<u>Women</u>
II	1,500	1,183
III	1,136	872
IV	834	634
V	710	539
Weighted Average All employees	1,151	702

Note (Source : Statistisches Jahrbuch 1967).

- Group II : Very highly experienced commercial and technical employees in responsible positions with some authority to appoint and instruct employees of other groups.
- Group III : Commercial and technical employees with several years' working experience who generally work independently but do not have responsibility for work of others.
- Group IV : Commercial and technical employees who have simple tasks not involving independent decision taking. Their tasks require a completed vocational training or several years' vocational experience or study at a technical school. Also employees who supervise the activities of unskilled workers.
- Group V : Commercial and technical employees engaged in simple mechanical or other activities that do not require previous vocational training.

(Source : Statistisches Jahrbuch 1960).

It is difficult to say how well salaries compare in the teaching profession and in industry. All teachers in a given wage group earn the corresponding wage. The earnings in industry are averages, which means that there is probably a wide dispersion of earnings in each of the groups. One fact is clear, however, for similar levels of achievement women earn considerably less than men do in commerce and industry. This alone explains one of the great attractions of the teaching profession for women. It is one of the few occupations (not only in Germany) in which women are paid the same as men for similar work and achievements.

The other question of interest apart from the one of whether teachers' earnings compare favourably or not with earnings in other occupations, is whether teachers' salaries are evolving faster or slower than general economic growth rates. First of all, it has to be

ascertained to what extent wage rises were swallowed up by cost of living increases. The best indicator of changes in the cost of living in Germany is the cost of living index for a 4-member family with a middle-level earned income. This index is compiled regularly for the Federal Republic and though most of the teachers are in a higher income bracket, the results are sufficiently accurate to be used.

Cost of Living Index, 1962 = 100 (1)

1961	97.1	<u>rebasing</u> 1961	=	100
1962	100	1962	=	103.0
1963	103.0	1963	=	106.1
1964	105.4	1964	=	108.6
1965	109.0	1965	=	112.3
1966	112.8	1966	=	116.2

(1) Worker household of 4 members with approximately 750 D.M. monthly expenditure in 1962. Household in which head of household is sole earner.
Source : Statistisches Jahrbuch 1967.

Thus, teachers' salaries would have had to increase about 16 per cent between 1961 and 1966. However, during these years the economy was growing rapidly, so that a real growth in welfare was possible.

Between 1960 and 1965, Gross Domestic Product at constant prices rose 30.3 per cent and consumer expenditure rose 30.8 per cent (figures for 1961 to 1966 were not published at time of writing. Source 1967 Statistisches Jahrbuch).

Using the above information on real growth in consumer expenditure and gross domestic product, it seems that on average in a 5-year span, real welfare could rise about 30 per cent, given that the cost of living rose about 16 per cent during that time, teachers' salaries would have had to increase in the neighbourhood of 45 per cent in order to keep pace with developments in the economy at large. Looking at the index of starting salaries for the different types of teachers, 1961 = 100, it will be seen that several categories of teachers did attain wage increases of the magnitudes involved above. In particular, gymnasium teachers, who are in such desperate shortage right now, did not have anything approaching a 45 per cent increase in earnings between 1961 and 1966. The same is true for another category of teachers for which there is an extremely grave shortage, teachers of subjects such as needlework, music, sports, etc. in the elementary schools. Of course, it is difficult to know whether the gymnasium teachers were in a particularly favourable position or not in relation to the other groups at the starting point of the comparison, i.e. in 1961. In any case, no one will deny the need to attract more graduates, particularly of science subjects, to teaching. Yet, in order to raise the wages of university graduate teachers the administrative authorities would have to raise the wages of all graduates employed by them. It does not matter if there are already too many lawyers or not, if the wages of science teachers are to be raised, lawyers must also earn more. Thus, once again, the inappropriateness of teachers being classified along with all other occupations in one grand civil service scheme is pointed up. The teachers of the elementary schools feel that they are unfairly classified in too low an echelon and the classification of the gymnasium teachers, while perhaps satisfactory to them from a hierarchical status point of view, leaves no flexibility for a wage incentive policy to be followed.

Although in some circles, it has been realised for very many years that it would be desirable to take teachers out of the general civil service structure, the administrative

reform this would entail would be considerable and this too is realised. Nevertheless, as education absorbs larger and larger slices of the country's resources, the need is greater for an administrative structure that permits rapid policy response to current problems. Thus the advantages of carrying out this change outweigh the inconvenience of making such a far-reaching administrative reform. This could also be the occasion for re-thinking the whole nature of the present hierarchical grading of teachers. If any move is to come in the direction of teachers being considered according to the age-range of the pupils they teach (studienlehrer) which, given the present shortage of gymnasium teachers seems inevitable anyway, the moment at which a new relationship between the administration and the teachers is adopted, would be an ideal time to carry out such a change. Such developments should underline the unified nature of the teaching profession, with due recognition of a differentiation of functions and specialisation within the teaching profession. There is still a great deal of doubt in the public mind that teaching in the elementary schools is a professional occupation. This doubt should be dispelled by appropriate policies by the authorities to show that they, at least, consider elementary school teaching a professional activity.

A separate administrative status for all types of teachers, with its own wage scale based on criteria relevant to the educational system would go a long way to help to make a solution of many of the other problems arising in the field of education and in particular with regard to teachers.

To mention just a few of the questions that arise in the field of education but do not have an over-riding importance in other spheres of government administration, there is the problem of the re-employment of married women who would like to work again after having fulfilled their family responsibilities and the part-time employment of women who have families to look after. Although these topics are much discussed in all sectors of government administration, their relevance cannot be said to be the same for the state-run railways and for the schools! Yet, when the entire administration is concerned, the numerically relatively small number of teachers are swamped by consideration of the needs of those sectors of the administration that employ a far larger number of people. There is only one occupation in which a very high proportion of the practitioners are women with a completed higher education, and that occupation is teaching. There is a severe shortage of teachers, so it seems obvious that the needs of the teaching profession should be considered for the profession as a whole and not for the whole apparatus of central and local government with their several million employees.

4. Policy regarding the Return of Women to Teaching and Part-Time Employment

Up to the present time no specific policies have been adopted to encourage married women to return to the schools. In fact, there is considerable resistance to this idea amongst many school authorities and administrative authorities who have responsibility for educational matters. The arguments on both sides are rather well known, so they do not require any great elaboration here. There are very briefly :

Against the return : A career requires a minimum of uninterrupted service, and a person who has been absent for some time will not be able to fill his/her functions adequately. This being the case, encouraging a return and making it easy would be unfair to those persons who have not had an interruption in their employment. The other types of reasons given are organisational ones. There are not always jobs available when and where there is a willing returner. In fact, the large towns may have an easier teacher supply situation and it may also be in the large towns that married women want to take up employment once again. A variant of this argument is the one raised against part-time employment. Here the difficulty of arranging time-tables satisfactorily, finding teachers for the

hours that are not taught by the part-time teacher, give rise to organisational and administrative inconvenience.

For the return : There is a severe shortage of trained teachers and this is likely to be true for many years to come. Instead of employing lesser qualified people, it would be preferable to encourage mature women who have had personal experience of looking after their own children to return to teaching. A part of this argument is the one that says that women are performing a socially useful function in spending a certain number of years at home with their families and it is therefore unjust to penalise them for accepting to fill that role. It is realised that refresher courses are very necessary in the case of long absences. In any case, these are cheaper to run than training an entirely new person to carry out the tasks which can be performed by someone who is already trained. Another argument is that it is not satisfactory for young people to be taught almost exclusively by single women. The same arguments are used to favour the part-time employment of teachers.

Perhaps the best solutions to these questions should be looked at in a pragmatic sort of way. There is no reason why any woman leaving the teaching force at the time of marriage should have the right to return to the schools any time she thinks fit to teach for the number of hours she cares to name. The schools should avail themselves, however, of a continually increasing source of supply of teachers. Many countries have now made steps to use this source of teachers. It is very doubtful indeed that the low marriage rates of women with higher education that have favoured a relatively high female participation rate up to now will continue.

Two of the Länder have made a start with allowing part-time employment of civil servants under certain specific circumstances. These Länder are Lower Saxony and Baden-Württemberg. The Lower Saxony Regulation, that became operative in 1960, allows for the regular working hours of civil servants who have particularly heavy family responsibilities (1) to be reduced by half with a corresponding cut in earnings. The length of time for which the reduction in hours was to be applied and the category of civil servants who could benefit from it was left to later agreements. From 1961 onwards all teachers were included who had at least one child aged 8 years or less, or two children aged 14 years and less, or one sick child. At present these regulations will be valid up to 1970.

In Baden-Württemberg, as of 1st August 1962, all married civil servants can be employed on a part-time basis for a maximum of 15 years. The same applies to unmarried female civil servants who have responsibility for the care of one or more other persons.

So far, in both cases, the numbers involved are very small, but this may in fact, be due to most teachers losing their civil service status at the time of their leaving employment in the first place. Up to now the terms under which most women left their jobs on getting married or having children meant that they lost their civil service status. Therefore the laws in the two Länder just mentioned can be expected to affect teachers who are just about to leave the schools rather than those who have left them several years earlier. It is to the latter category that efforts could be directed in the future.

There is the possibility that teachers may be employed without being civil servants on a full-time or part-time basis (Angestellter im Öffentlichen Dienst). This provides a far greater degree of flexibility in terms of employment than civil service status, and recent adjustments to pension regulations for non-civil servant government employees make employment under these terms more attractive.

To sum up this section, it can be said that a separate status for all teachers within the civil service would make the solution of problems concerning teachers much easier.

(1) "Die als Frau und Mutter durch die Sorge für ihre Familie besonders belastet ist".

CHAPTER IX

SOME RELEVANT TOPICS NOT COVERED BY THIS STUDY

Before going on to draw conclusions from the material presented in earlier chapters, a few words should be devoted to those topics that have a direct relevance to this study but which have not been raised, mostly due to lack of data.

1. One-teacher schools and other very small schools

There are still several thousand one-teacher schools in the Federal Republic. Given the remoteness of some of the villages and their sparse population, a certain number of such schools are inevitable. Yet, a great number of them are still in existence because the primary school in many of the Länder is organised on a confessional basis. In a small village where there are 80 children to be educated, instead of having 1 school with 3 or 4 classes, there will be 2 schools each with 1 or 2 classes, one protestant school and one catholic. Needless to say, such organisation of schools is not very efficient and children cannot really be said to have the same educational opportunity in very small schools as they do in larger ones. Both from the point of view of equity and efficiency, a rationalisation of the very small schools is necessary. Many measures have been taken in recent years to encourage larger school units in rural and mountainous areas.

2. Denominational organisation of primary education

Without entering into great detail on this very complicated question, there are several implications for teacher utilisation of schools being organised on a denominational basis. One of them has already been briefly touched upon in paragraph (a). This is that it leads to the constitution of uneconomic school units. The other is that a teacher's employment may be, and is very often, conditional upon his/her being of the appropriate faith. The fact that primary education is arranged on a denominational basis has also meant that many Colleges of Education are also organised in the same way.

Without a proper survey of the question there is really no way of knowing the implications for teacher demand and supply of a denominationally based primary school system. This is a factor that concerns the various Länder to a greater or lesser degree.

3. Regional differences and the consequences of Federalism

There are really two distinct but related topics that should be included under this paragraph. One of the sets of regional differences concerns the differences between the Länder, and the other set the differences between urban and rural areas and industrial and agricultural areas, etc.

So far, in most instances the Federal Republic has been considered as a whole, but the quantitative averages used to denote the entire country conceal wide variations. What

is, perhaps, even more significant from the point of view of the conclusions to be drawn from this study is that all policy questions are settled at the level of the L nder administrations. Of course, co-ordination between the L nder exists to ensure a basic standardisation of the educational system and on such matters as the terms of employment of civil servants, etc. Yet, within the basic common framework there is room for quite a bit of manoeuvre. The federal organisation of education can have both positive and negative aspects to it. On the one hand, L nder that are willing to carry out new educational experiments or carry out particular reforms do not need to wait until there is a general nation-wide consensus to go ahead. Thus, recently, Hamburg has re-graded its elementary school teachers so that they are now part of the "h here Dienst", the higher echelon of the civil service. Hamburg also introduced university education for its elementary school teachers straight after the war. It is difficult to say that now that there is a precedent, sooner or later, the other L nder will go ahead and re-grade their elementary school teachers, but this is the other argument for federal organisation, viz., that once a reform has been carried out in one place, others will follow the example. A corollary of this is that if the move turns out to be unsuccessful for one reason or another, the harm caused may be limited. On the other hand, when a major reform has to be carried out, it is always far more difficult to achieve when 11 administrations have to come to an agreement. Since the agreement of all the L nder would be necessary for far-reaching organisational changes in the educational system, it is on the most essential matters that decision making is most difficult. As far as teachers are concerned, what has to be kept in mind is that they are employed as civil servants of one of the 11 L nder, in the school system of that Land. Teachers do not have an automatic right of appointment in the school systems of the other L nder, although teacher qualifications are reciprocally recognised.

It would really be ideal to carry out a separate study for each of the 11 L nder, taking into account its particular conditions and circumstances, but this has just not been possible. Some of the L nder, Baden-W rttemberg is an example, have carried out their own educational planning studies on a fairly large scale. It has not been possible to incorporate their findings to any great extent here.

As for the other types of regional differences, it will have to suffice to say that they do indeed exist. The educational opportunities of children in remote rural schools just are not the same as those of children in large towns who attend big schools offering a wide choice of alternative types of education. Data do not exist to say anything meaningful on this topic.

CONCLUSIONS

This section will be as brief as possible in summing up the main points that have been made in previous chapters and in drawing what seem to be the most important conclusions from them.

During the entire post-war period there has been a considerable teacher shortage in the Federal Republic. It is now clear that this stage of affairs will continue for the foreseeable future. Of course, a shortage is a question of definition. In the sense in which the word is used here it is related to the norms outlined in the First Assessment of Needs prepared by the Ministers of Culture of the *Länder*. As was seen in the relevant chapter, the way these norms are used to estimate requirements leads to an understatement of teacher requirements in German schools (1) so the situation is in fact graver than it seems from the figures given in earlier chapters.

The growth in teacher demand has not only been due to an increase in pupil numbers, but in recent years there has been a marked shift in demand from teachers of one kind to teachers of another. Children (and parents) are more and more choosing "real" school and gymnasium school education. The notion that there is some fixed number of gifted children who are fit for gymnasium-type education is more and more discredited as the social bias of selection procedures for such education comes to be realised. This shift in demand from prolonged primary education to academic secondary education means that not only are different kinds of teachers required, but far more of them for a given number of pupils, as academic secondary education is far more expensive in terms of teacher time than the upper grades of the basic and main schools. The shift of demand to gymnasiums and "real" schools has put very heavy strains on the lower grades of these schools in recent years, and the gymnasiums in particular have very heavily over-crowded lower grades. The crisis (the term is not too strong) in the gymnasiums has been such that attention has to some extent been turned away from the basic and main schools, though here too conditions are far from ideal.

The basic and main schools are at present undergoing profound changes that require for their success a large number of new teachers. First of all, the 9th year of compulsory education has to be fully implemented. There is also talk of a 10th year of compulsory education though it is difficult to envisage this becoming a reality for the time being. The main transformation hoped for from these schools, however, is that the 5th to 9th years of schooling may be developed into proper secondary education and not merely continued primary instruction. This means raising the standards of teaching and widening the curriculum extensively. Already foreign language instruction is far more widespread than it used to be and all sorts of specialised work is to start in these schools. Since this reform touches the vast majority of German children of the relevant age-range (most children still stay on at non-academic schools in spite of the great increase in transfers to academic schools) its success must surely be of the greatest concern to all persons

(1) The use of averages to define optimum class size, which conceals the fact that the majority of children are in over-crowded classes.

involved in the field of education. The question is, how is its success to be assured at a time when many qualified basic and main school teachers are being attracted into "real" school and gymnasium teaching and when more and more of the more able pupils are transferring to those schools?

On the supply side of the picture a number of points need to be raised : recruitment to the teaching profession is made almost exclusively after people have passed specific examinations. In the gymnasiums there may be a few teachers who come from other professions, such as engineers giving some lessons in mathematics, etc. Only in vocational and technical education is it possible to recruit substantially more people than have actually been trained as teachers. This means that the output of the educational system of persons with the required qualifications sets a rather strict limit on the rate at which the teacher supply can be increased. But educational institutions do not respond to needs felt in the outside world very rapidly. The rate of response varies directly with the length of the training course to be undertaken and the type of entry procedures into various types of educational institutions. Colleges of Education have been able to expand both their intake of students and their output of trained teachers rather rapidly. First of all, the courses are of fixed duration and this duration is not excessively long: three years. Secondly, the drop-out and failure rates are both low, so that nearly all students registering for a course of study at a College of Education pass the 1st State Examination three years later. All in all, if a campaign is started to encourage more people to become basic and main school teachers, about 4 to 5 years later the campaign should start showing results. In fact, in the last few years the great increase in output of Colleges of Education has been due to efforts made to interest people in basic and main school teaching in the late fifties and early sixties. In the case of gymnasium teachers the time-lags involved are much longer. The young graduates who have just completed their traineeship period probably entered the universities in 1960 or even earlier, at a time when the severe shortage of basic and main school teachers pre-occupied everybody and when the great influx to the gymnasiums was barely suspected. Even if there is a vigorous effort now to encourage students to take qualifications leading to a gymnasium school teacher's career, it will only be in the years after 1975 that its effects will really begin to be felt. The output of new teachers up to about 1975 has already entered the universities, and although there has been an increase in the number of students, this increase has been nothing like that which would be required to cope with the current shortage of gymnasium teachers.

In Germany, assuring an adequate supply of teachers is complicated by other factors. As there are no capacity limitations (*numerus clausus*) for most forms of higher education, it is very difficult to tell just how many students are going to register each year and for what studies. In those fields leading to a gymnasium qualification, it is even more uncertain, as there is no clear-cut distinction between those students who intend to become gymnasium or "real" school teachers and all the others choosing a variety of occupations at the end of their studies. How can the output of trained gymnasium teachers be related to the requirements of the schools under such circumstances ? It is not even known with any great precision how many students at any one moment intend to become gymnasium teachers. It is then not known in which Land of the Federal Republic they will become teachers. It is only at the probationary stage, when future teachers are preparing the 2nd State Examination that the Ministries of Education get a clear idea of how many teachers they can expect in their particular Land. It would be advantageous to be able to estimate future teacher supply by Land several years in advance. Due to the decline in the size of the relevant age-group, it is probable that fewer students are now enrolled in courses leading to a gymnasium teacher qualification than there were in some recent years, although the demand for gymnasium teachers is still growing very rapidly.

The difficulty of substantially increasing the supply of teachers, particularly gymnasium teachers, in the short-run has meant and will continue to mean that the gymnasiums have to recruit teachers who were trained for other schools, thus depriving the other schools of their increased teacher supply.

Even though there are relatively long time lags involved in increasing the output of teacher training institutions, in the next few years their output should be considerably expanded. There is no pointing in trying to interest groups who are unlikely to be attracted by a teaching career and efforts should be directed at those groups in which it is known that a favourable response can be expected. Thus, it is highly unlikely that boys from the most advantaged social groups will enter Colleges of Education in any large numbers, though their interest in gymnasium teaching should be re-awakened. One of the more disconcerting facts is the drop in the percentage of male students starting a course in higher education who chose courses leading to a gymnasium teaching career. The "Zweiter Bildungsweg" should provide a good source for new basic and main school teachers, as for the less socially advantaged groups the career of basic and main school teacher is considered a social advance. One of the best ways, however, to remove the reasons why many male matriculates do not want to become basic and main school teachers is to raise the status of teachers in these schools. This could be done by changing the civil service position presently occupied by these teachers.

The best potential source of new teachers, however, is amongst girl secondary school leavers. This is true for all types of teaching. The new 3-year university training for "real" school teachers is likely to be a most attractive course for girls. The interest of girls for teaching has been demonstrated over and over again. Increasing the output of the gymnasiums is a pre-requisite for increasing the students undergoing teacher training. At present only around 35 per cent of the matriculates are girls, yet far more of them want to be teachers. The full participation of girls in academic secondary education should be strongly encouraged. Parents should be advised against taking their daughters out of school after 11 years of schooling instead of keeping them on for 2 years more, or of sending them to "real" schools when they are capable of completing gymnasium education.

The greater interest amongst young women in teaching as a profession is translated into practical terms by a higher and higher percentage of women teachers in the schools. The full impact of the change in the proportions of female to male graduates from training colleges has not yet been felt. When women made up only a small percentage of teachers, it was perhaps not quite so important to take measures to encourage married women to stay in their jobs or to return to teaching after raising a family. There have been special conditions operating in Germany that so far have meant a high participation rate of women in teaching. The surprisingly low marriage rates amongst teachers can hardly be expected to continue amongst the current and future generations of young women teachers. One of the necessities of a programme to encourage married women teachers to return to school is a wide range of refresher courses that enable them to make up for some of the time missed. More opportunities for part-time teaching should be made available. It should not be forgotten that in the short-run, the married woman teacher who is at home is just about the only available source of trained teachers.

As far as the current working conditions of teachers are concerned and their earnings, it seems that their integration into an overall civil service administrative scheme gives rise to the greatest dissatisfaction. It is very difficult, if not well-nigh impossible, to pursue an educational policy in as far as teachers are concerned if every condition and regulation has to apply to post-office workers, railway workers and all other civil servants. Also, the present system consecrates a sort of hierarchical caste-system in which the gymnasiums and their teachers have a great deal of prestige, followed by "real" schools and

their teachers, followed by the basic and main schools and their teachers. It can honestly be asked whether such a system corresponds to the reality of the schools as they are today or to the needs of today's educational system. Out of sheer weight of pupil numbers, the gymnasiums are being forced to recruit more and more "real" school and basic and main school teachers. As the gymnasiums have no means by which they can influence teacher supply in the short or even in the fairly long run, they have to use other teachers who were not trained for the traditional type of gymnasium schools.

For a long time now representatives of teacher organisations have requested a separate status for teachers within the civil service. Any distinctions as to grade, earnings, etc., should take place within that status as teachers. Teachers should be classified according to the age-range of the pupils they teach. It is by no means an easier job to teach 7 year olds effectively than it is to teach young people who are about to complete secondary education. It requires a different kind of specialisation, however. If, under the weight of numbers it is found that basic and main school teachers are capable of teaching in the lower grades of the gymnasiums, it has to be admitted that they were capable of doing so all along. An artificial isolation between the different school types is undesirable. The danger is that if no adequate recognition is given to basic and main school teachers in their own right, then the best of them will be tempted to leave for the schools with greater prestige. The move to classify the basic and main school teachers of Hamburg in the higher echelon (*Höhere Dienst*) of the civil service is a very important move in this direction. The grouping of all teachers in their own career group outside the accepted rankings of all other civil servants would be an even greater move in this direction, although this is equivalent to requesting a major overhaul in the regulations of the German Civil Service and hence may be very difficult indeed to realise.

Finally, in the short-run, teacher shortages can only be dealt with by stop-gap measures such as over-crowding classes, cutting the curriculum, employing auxiliary or unqualified teachers or teachers who were not trained for the particular type of teaching in question. An active teacher policy must be a long-term policy as very little can be done in the short-run. For many years to come German schools will have to use the various stop-gap measures at their disposal, though a more active teacher policy, in such matters as encouraging trained teachers who are not working to teach again, would be of great potential benefit. A problem cannot be solved until there is awareness of it, and the very important work of the Standing Committee of the Ministers of Education in publishing its estimates of the demand for teachers in 1970, and the likely available supply, is the pre-condition for solutions to be found to the problem areas pointed up in the "Second Assessment of Needs".

BELGIQUE

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PREFACE

Le Comité du Personnel Scientifique et Technique de l'OCDE a témoigné un vif intérêt aux problèmes soulevés par l'offre et la demande de personnel enseignant. Ce dernier est vite apparu comme un élément fondamental du développement quantitatif et qualitatif du système d'enseignement. La recherche d'un équilibre entre l'offre et la demande de personnel enseignant nécessite la mise en oeuvre de politiques spécifiques de formation, de recrutement et d'utilisation intéressant l'un des secteurs les plus importants de la main-d'oeuvre hautement qualifiée.

A l'occasion d'études globales des "ressources en personnel scientifique et technique dans les pays de l'OCDE" et de la "politique générale et de la planification en matière d'enseignement" dans de nombreux pays membres et dans un rapport plus spécialement consacré aux "effectifs, au recrutement et à la formation des professeurs de sciences et de mathématiques", décidées par le Comité du Personnel Scientifique et Technique, certains aspects des problèmes soulevés par la demande et l'offre de personnel enseignant avaient été mis en lumière.

Afin de faire le point sur la situation du corps enseignant au niveau de l'enseignement primaire et secondaire tant du point de vue quantitatif que qualitatif, dans les années récentes et dans le futur, le Comité a décidé d'entreprendre une étude de synthèse reposant sur des données de base recueillies dans un certain nombre de pays membres de l'OCDE et consignées dans des monographies nationales.

La monographie ci-jointe, intéressant la Belgique fait partie de la série de monographies nationales consacrées à la formation, au recrutement et à l'utilisation des enseignants de l'enseignement primaire et secondaire.

Elle a été préparée par le Secrétariat à l'aide des données transmises par le Centre-Pilote pour l'étude des investissements dans l'enseignement du ministère de l'Education nationale et de la Culture du Royaume de Belgique, à titre de contribution des autorités nationales belges à l'élaboration de cette série de monographies nationales.

CHAPITRE I

FORMATION DES ENSEIGNANTS

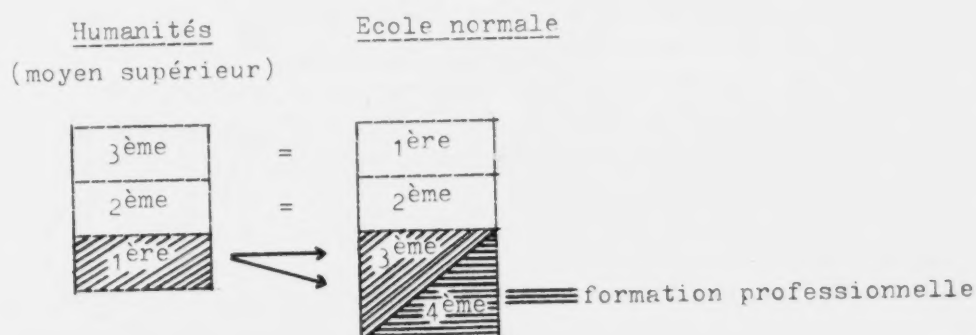
A. Formation des diverses catégories d'enseignants

1. Enseignants de l'enseignement primaire

(a) Jusqu'au 1er septembre 1967 :

Jusqu'à l'arrêté du 20 juillet 1967, la formation des enseignants de l'enseignement primaire se situait au niveau de l'enseignement secondaire. Pour être admis dans une école normale primaire, il faut avoir terminé les études secondaires inférieures. Il faut donc être âgé d'au moins 15 ans et si des dispenses peuvent être accordées, elles ne peuvent excéder une période de 6 mois. La durée des études normales primaires est de quatre années.

Le programme des écoles normales primaires comprend en plus de la formation pédagogique, tous les cours d'humanités anciennes ou modernes (enseignement moyen du degré supérieur) répartis suivant le schéma ci-dessous :



A la fin de la quatrième année d'étude de l'enseignement normal primaire, les futurs instituteurs subissent un examen devant un jury composé de membres du personnel enseignant de l'établissement et un délégué de l'Etat. La réussite de cet examen permet de conférer au candidat le titre d'instituteur en même temps qu'un certificat d'humanités; le candidat a aussi la possibilité d'obtenir le diplôme d'aptitude à l'enseignement supérieur (1).

Le diplôme d'instituteur peut aussi être obtenu (a) devant le jury central de l'enseignement normal primaire, à cet effet, l'examen comporte deux épreuves à subir à un an d'intervalle et dont le programme est celui des écoles normales primaires, (b) en un an d'études spécialisées après l'enseignement moyen supérieur.

Il existe aussi (2) un régime expérimental organisé par l'Etat où les futurs instituteurs sont recrutés, sur examen, à l'issue de l'enseignement moyen supérieur. Le cours de formation dure un an.

(1) Lui permettant d'accéder à cet enseignement supérieur.

(2) Jusqu'à la réforme de 1967.

Il est spécifié que "les cours de langue maternelle, d'histoire, de géographie, de mathématiques et de sciences naturelles, à confier à des spécialistes, sont conçus comme étude et commentaire des programmes de l'enseignement primaire. Sous aucun prétexte, ils ne peuvent être l'occasion d'enseigner aux élèves une matière nouvelle. Il s'agit, en effet, non d'un complément de culture ou de formation, mais d'une préparation au métier d'instituteur" (1).

Mais l'ensemble de cette législation se trouve modifié par la réforme de l'enseignement normal primaire mise au point par les autorités belges.

(b) La réforme de l'enseignement normal primaire :

La grande nouveauté est le fait que la durée des études dans l'enseignement normal primaire est, à partir du 1er septembre 1967, prolongée d'une année.

L'élève qui, à partir du 1er septembre 1967, commence les études d'instituteur doit avoir le certificat homologué de l'enseignement secondaire inférieur délivré par un établissement d'enseignement moyen ou technique ou par le jury d'état pour l'enseignement secondaire inférieur. Une fois ce certificat obtenu, deux possibilités lui sont offertes.

Première possibilité

L'élève commence dans le premier cycle de l'enseignement normal primaire où il suivra les cours de l'enseignement moyen supérieur et des cours destinés à développer les moyens d'expression :

l'éducation musicale, l'éducation plastique, l'éducation physique, le travail manuel et des travaux féminins.

A la fin de ce premier cycle de trois ans, l'élève obtient le diplôme de l'enseignement moyen supérieur dans les mêmes conditions que s'il avait suivi l'enseignement moyen. En même temps il peut aussi obtenir le diplôme d'aptitude à l'enseignement supérieur.

Après avoir suivi pendant deux ans le deuxième cycle et après avoir subi un examen, l'élève reçoit le diplôme d'instituteur. Ce deuxième cycle comprend des cours et des stages qui sont indispensables pour que le candidat enseignant puisse exercer sa tâche dans l'enseignement primaire. Le contenu de ce programme doit encore faire l'objet de décisions gouvernementales.

Deuxième possibilité

Après avoir obtenu le certificat de l'enseignement secondaire inférieur, le candidat-enseignant suivra les trois ans de l'enseignement secondaire supérieur (moyen ou technique). La réussite de cet examen lui permet de suivre le deuxième cycle de l'enseignement normal primaire après avoir subi un examen qui portera entre autres sur les cours des moyens d'expression enseignés de toute façon, dans le premier cycle de l'enseignement normal primaire. Après ces deux ans d'études, l'élève recevra lui aussi le diplôme d'instituteur. Donc, tant la première que la deuxième possibilité exigent cinq années d'étude après l'enseignement secondaire inférieur au lieu de quatre.

Pour les élèves ayant déjà commencé leurs études dans l'enseignement normal primaire, on prévoit des dispositions transitoires : ils obtiendront le certificat de l'enseignement moyen supérieur à la fin de la troisième année du normal primaire et le diplôme d'instituteur à la fin de la quatrième année.

Notons encore que la possibilité de devenir instituteur en suivant, après l'enseignement moyen supérieur, pendant une année les cours de l'école normale primaire, est abrogée à partir du 1er septembre 1968. Elle est remplacée par une année psycho-pédagogique qui sera organisée pendant les années scolaires 1968 - 1969 et 1969 - 1970. En définitive, la

(1) J. Majault : La formation du personnel enseignant - Conseil de l'Europe, 1965.

possibilité de devenir instituteur en suivant, après l'enseignement moyen du degré supérieur, un cours spécifique d'une année à l'école normale primaire, sera abrogée à partir du 1er septembre 1970. La prolongation de la durée des études dans l'enseignement normal primaire doit enfin être située dans le cadre général d'une réforme des études d'enseignants de chaque niveau; on discute en effet de la possibilité de prolonger d'une année les études dans l'enseignement normal moyen, ainsi que les études des licenciés qui veulent devenir enseignants.

Il est intéressant de noter, pour le futur recrutement des enseignants, et en particulier, de ceux de l'enseignement primaire, qu'on a créé dans l'enseignement normal primaire une section "sciences humaines" qui donne une formation axée sur les problèmes sociaux au sens large.

Dans sa réponse à une question parlementaire de M. Dehousse (15 décembre 1967), le ministre de l'Education nationale déclarait que "le programme développera spécialement les matières propres à l'esprit de cette section comme l'économie, la sociologie, l'histoire des sciences et les techniques, la dynamique des groupes. Une commission vient d'être créée en vue d'élaborer les programmes et les horaires et de répartir la matière entre les différentes années d'études" et encore plus loin, il indiquait qu'il entraînait dans ses intentions "d'accorder au certificat délivré au terme des études de cette section, l'omnivalence sous la condition d'un examen complémentaire de maturité".

La circulaire ministérielle du 25 avril 1968 a stipulé que cette section n'assurera pas uniquement la formation des futurs enseignants mais aura également une grande importance pour ceux qui poursuivront leurs études au niveau universitaire, sections sciences sociales ou sciences humaines (pédagogie, psychologie, etc...). Le programme de cette section "sciences humaines" comprend surtout la connaissance des langues modernes, l'étude de l'être humain et de son milieu, les moyens d'expression et l'utilisation des techniques modernes.

2. Enseignants de l'enseignement secondaire général

(a) Agrégation de l'enseignement secondaire inférieur :

L'enseignement normal moyen (de niveau supérieur non-universitaire), prépare les agrégés de l'enseignement secondaire inférieur (régents) destinés à enseigner dans le cycle inférieur de l'enseignement moyen et dans l'enseignement technique secondaire (matières générales); l'âge normal d'admission est de 18 ans et les études durent deux années.

Les conditions d'accès à une école normale moyenne, peuvent être représentées selon le schéma ci-dessous :

ACCES AUX ETUDES NORMALES MOYENNES

Conditions d'accès	Agrégé(e) de l'enseignement secondaire inférieur, section :
A B C D E F G H	
. . .	Langue maternelle-histoire (rég. néerl. : néerlandais-anglais)
. . .	Langues modernes (rég. néerl. : français-histoire)
. . .	Mathématiques
. . .	Sciences-géographie
.	Education physique-biologie
.	Arts plastiques (garçons)

- A : Diplôme d'instituteur(trice) primaire.
- B : Certificat homologué de fin d'études moyennes du degré supérieur, délivré par un établissement d'enseignement moyen ou par le jury d'état.
- C : Diplôme de fin d'études d'une école technique secondaire supérieure.
- D : Certificat de capacité aux fonctions de maître spécial d'éducation physique dans les écoles primaires, délivré par un jury constitué par le gouvernement.
- E : Diplôme de professeur d'éducation physique dans une école moyenne ou un quatrième degré d'école primaire, délivré par un jury constitué par le gouvernement.
- F : Diplôme de professeur de dessin dans les écoles moyennes de l'Etat.
- G : Certificat de fin d'études artistiques obtenu après avoir terminé avec fruit un minimum de six années d'études secondaires de plein exercice.
- H : Certificat établissant la réussite de l'épreuve préparatoire aux études d'architecte.
- © : Un examen complémentaire est en outre imposé.

Les titulaires d'un certificat ou d'un diplôme espagnol, français, italien ou néerlandais de certaines sections d'enseignement secondaire ont aussi accès aux études normales moyennes.

Les élèves-maîtres sont répartis en plusieurs sections. La circulaire ministérielle du 21 août 1963 a créé dans les écoles normales moyennes officielles du régime linguistique français (1) les sections ci-après :

1. une section langue maternelle-histoire
2. une section des langues modernes
3. une section mathématique
4. une section sciences-géographie
5. une section éducation physique-biologie
6. une section des arts plastiques.

Chaque section comprend un certain nombre de branches obligatoires, propres à la spécialité choisie. Ces branches occupent la plus grande partie de l'horaire; tous les élèves peuvent opter, en outre, entre deux heures-semaine de religion ou de morale.

Il existe enfin un groupe de branches à option où les élèves peuvent choisir un ou deux cours qui leur permettront d'ajouter d'autres spécialités à leurs branches fondamentales. Voici les compléments possibles :

- dans la section langues modernes : morale, allemand, sciences économiques;
- dans la section langue maternelle-histoire : morale, anglais, latin;
- dans la section mathématique : morale, physique, chimie, sciences économiques;
- dans les trois autres sections, le groupe des matières obligatoires est déjà si étendu que la circulaire n'a pas mentionné de cours à option.

Les cours à option occupent généralement cinq heures par semaine et sont toujours complétés par les cours de méthodologie et les leçons didactiques appropriées (une heure par semaine). Dans toutes les sections, sauf dans la section des arts plastiques, les élèves ont, en outre, la possibilité de choisir une activité facultative de trois heures par semaine (les élèves ont le choix, notamment, entre éducation musicale, travaux manuels, moyens audio-visuels, théâtre, etc.). La structure des études dans l'enseignement moyen

(1) Les écoles du régime linguistique néerlandais connaissent la même division, sauf pour les points 1. et 2. qui comportent respectivement une section "néerlandais-anglais" et une section "français-histoire".

libre subsidie correspond à celle de l'enseignement normal moyen de l'Etat. Il y a deux exceptions : 1) Les cinq heures hebdomadaires de morale peuvent être remplacées par cinq heures hebdomadaires de religion dans les sections langues modernes, langue maternelle-histoire et mathématiques.

2) Le programme de la section néerlandais-anglais peut être modifié. Cette possibilité d'adaptation existe depuis l'année scolaire 1962-1963.

- Les établissements d'enseignement normal moyen délivrent les grades d'agrégés de l'enseignement secondaire inférieur selon le schéma suivant : agrégé (e) de l'enseignement secondaire inférieur (régent ou régente) dans la section - langue maternelle-histoire (en régime néerlandais : néerlandais-anglais) - langue moderne (en régime néerlandais : français-histoire).

- Mathématiques
- Sciences-géographie
- Education physique-biologie
- Arts plastiques (garçons)

Ces titres peuvent également être conférés par des jurys centraux.

(b) Agrégation de l'enseignement secondaire supérieur :

Les futurs enseignants de l'enseignement secondaire supérieur sont formés à l'université où ils entrent munis du diplôme de fin d'études secondaires et du diplôme d'aptitude à l'enseignement supérieur. Ils passent une licence de spécialité et parallèlement à ces études de licence, les futurs enseignants suivent des cours théoriques de pédagogie expérimentale, de méthodologie générale, d'histoire de l'éducation et didactique. Des exercices pratiques ont lieu dans les écoles secondaires supérieures sous la direction de maîtres de stage. A l'issue de ces études l'université délivre un diplôme d'agrégé de l'enseignement secondaire supérieur.

3. Enseignants de l'enseignement secondaire technique

(a) Matières générales :

Enseignent les matières générales dans l'enseignement technique, des agrégés de l'enseignement secondaire inférieur et des agrégés de l'enseignement secondaire supérieur.

(b) Disciplines théoriques et pratiques de l'enseignement technique :

La formation de ces enseignants a lieu soit à temps complet dans des écoles normales techniques moyennes, de niveau supérieur non-universitaire, principalement les futures enseignantes et pour les futurs enseignants des disciplines agricoles et horticoles dans des écoles normales techniques dites "primaires", soit à temps partiel, dans des cours normaux techniques, principalement pour les futurs enseignants.

- Enseignement normal technique moyen :

L'âge normal d'admission est de 18 ans. Les conditions d'accès sont les suivantes :

Conditions d'accès

Diplômes : agrégé(e) de l'enseignement secondaire inférieur, section :

A B C D

..

Industrie (mécanique, électricité)

..

Commerce

..

Arts plastiques (filles)

..

Dessin de mode

..

Economie ménagère

Conditions d'accès

Diplômes : agrégé(e) de l'enseignement secondaire inférieur,
section :

A B C D

- . . Economie ménagère agricole
- . . Coupe - couture
- . . Lingerie
- . . Mode et fleurs artificielles
- . . Enfance inadaptée

A : Diplôme de la section correspondante délivré par une école technique secondaire supérieure.

N.B. : Les diplômés des autres sections et les porteurs d'un certificat homologué d'humanités peuvent subir devant le jury central un examen d'admission réduit, limité aux connaissances techniques et pratiques requises; cette remarque ne s'applique ni à la section "commerce" ni à la section "enfance inadaptée".

B : Examen complet d'admission devant le jury central.

C : Certificat d'humanités, section économique, ou épreuve correspondante subie devant le jury central.

D : Certificat homologué d'humanités (toutes sections) ou diplôme de certaines sections d'enseignement technique secondaire.

Les études durent deux années; on trouve les spécialités de l'enseignement féminin (section coupe-couture, section économie ménagère, section économie ménagère agricole, section arts plastiques), mais aussi des sections de commerce, ainsi que des sections industrielles. Le programme, qui est établi par chaque institution et approuvé par le pouvoir central, comprend des cours de formation pédagogique et technique. Ces études confèrent le titre d'agrégé(e) de l'enseignement secondaire inférieur (régent ou régente technique) dans la section :

- industrie
- commerce
- arts plastiques (filles)
- dessin de mode
- économie ménagère
- économie ménagère agricole
- coupe-couture - lingerie
- mode et fleurs artificielles
- enfance inadaptée
- Ecoles normales techniques "primaires"

La loi prévoit la possibilité de créer des écoles de plein exercice qui préparent le personnel enseignant pour l'enseignement de diverses branches. Elles exigent à l'admission un diplôme de l'école technique secondaire supérieure et délivrent après une année, un certificat d'aptitude. A l'heure actuelle, ils n'existent plus d'écoles normales techniques primaires.

- Enseignement normal technique à temps partiel

(1) Les cours normaux techniques moyens

Divers établissements d'enseignement technique ont créé des cours qui délivrent un certificat d'aptitude à l'enseignement. Ils forment des professeurs de pratique professionnelle et de technologie du métier et des professeurs de cours techniques théoriques.

L'élève qui veut suivre les cours normaux techniques moyens doit posséder un titre de fin d'études techniques ou professionnelles secondaires supérieures. Néanmoins pour le candidat-professeur de pratique professionnelle, on exige au moins un titre de fin d'études techniques ou professionnelles secondaires inférieures, trois années de pratique et une formation complémentaire (1).

La durée des études est de deux ans, mais le volume total d'heures consacrées à ces formations varie suivant le cas. Le programme est d'ordre pédagogique tandis que les examens ont lieu au cours d'une session annuelle devant un jury d'école. Les branches ayant fait l'objet des examens sont mentionnées sur le certificat.

(2) Autres cours normaux techniques

Il existe aussi des cours réservés aux candidats qui possèdent un diplôme de niveau supérieur. Ces cours, dont la durée est de un an, sont en général suivis par des gens qui se trouvent déjà dans l'enseignement; ils n'accordent aucun droit réglementaire.

B. Formation accélérée des enseignants

On n'a connu que deux programmes de formation accélérée en Belgique : l'organisation en 1959 par le ministre de l'Instruction publique - et parallèlement par la Fédération nationale de l'Enseignement catholique - d'un stage de six semaines en vue de la formation abrégée d'instituteurs et d'institutrices primaires de complément pour les régions wallonnes du pays. Les conditions d'admission étaient les suivantes :

- âgé de 18 ans au moins et de 28 ans au plus au 31 décembre 1958
- être titulaire ou bien (a) d'un certificat homologué ou agréé de fin d'études moyennes du degré supérieur ou bien (b) d'un certificat établissant que le candidat a subi avec succès, soit l'épreuve préparatoire à un des grades académiques, soit l'épreuve préparatoire à la candidature en sciences commerciales ou bien (c) d'un diplôme d'agrégé de l'enseignement secondaire inférieur, délivré, soit par une école normale technique organisée, subventionnée ou reconnue par l'état, soit par un jury central d'enseignement normal technique constitué par le gouvernement.

Après un examen de sélection, les candidats retenus étaient admis au stage. S'ils avaient terminé ce stage avec fruit, ils pouvaient être appelés à occuper, à titre intérimaire, un emploi d'instituteur(trice) dans les écoles primaires et les sections préparatoires des établissements secondaires.

Après ce stage, ils pouvaient se présenter à un examen réduit devant le jury central de l'enseignement normal primaire, après avoir : (a) exercé effectivement les fonctions d'instituteur de complément pendant une année scolaire; (b) obtenu un rapport favorable de l'inspection compétente; (c) assisté aux conférences pédagogiques cantonales et à la semaine pédagogique; (d) participé, pendant six week-ends, aux stages de formation complémentaire.

C. Les moyens de perfectionnement du personnel enseignant dans l'enseignement primaire et secondaire officiel

La législation belge ne prévoit pas la possibilité pour les enseignants de bénéficier d'un congé pour poursuivre leurs études. Néanmoins, le personnel enseignant dispose de plusieurs possibilités de perfectionnement :

- (1) les conférences pédagogiques qui ne sont obligatoires que pour les instituteurs communaux et qui ont lieu deux fois par an;
- (2) les cercles d'études d'instituteurs, des associations libres de membres du personnel enseignant qui se réunissent régulièrement afin d'étudier les méthodes d'enseignement;
- (3) les "semaines d'information et de perfectionnement pédagogiques" organisées par le ministère et qui ont lieu pendant les vacances de Pâques. Les participants peuvent suivre des exposés préparés par des spécialistes, surtout des inspecteurs de l'enseignement primaire.
- (4) les moyens de perfectionnement organisés par le service spécialisé de "l'Organisation de l'enseignement" (1).

- (a) les journées d'étude pendant lesquelles les participants étudient, sous la direction pédagogique des différents inspecteurs, les aspects didactiques des branches enseignées mentionnées dans le tableau ci-dessous :

<u>Branche enseignée</u>	<u>Nombre de journées d'étude en 1967</u>	<u>Participants</u>
langue maternelle	2	313
langues classiques	19	516
deuxième langue	25	462
sciences	31	1.253
mathématiques	29	729
géographie	7	371
histoire	56	1.325
sciences économiques	4	322
éducation physique	2	56
pédagogie	4	267
morale	25	1.217
religion catholique	10	494
religion protestante	1	105
branches techniques	19	417
enseignants enseignement primaire	12	517
enseignants enseignement spécial	4	101
	<u>250</u>	<u>8.517</u>

- (b) l'organisation de cinq congrès par an : deux congrès pour les enseignants sciences, deux pour les enseignants histoire et un congrès pour les enseignants morale.

- (c) l'organisation, en coopération avec les inspecteurs de l'enseignement primaire et secondaire d'un certain nombre de cours de formation qui permettent aux enseignants de suivre, pendant plusieurs jours, des cours concernant e.a. les moyens audio-visuels ou l'utilisation de méthodes modernes pour l'enseignement de la deuxième langue.

(1) + 14.000 enseignants suivent chaque année les cours organisés par ce service.

- (d) enfin l'organisation de séminaires pour le personnel enseignant, avec le but d'adapter l'enseignement à l'évolution de notre société.
- (5) Enfin, certaines facultés de l'université de l'Etat à Gand et de l'université catholique de Louvain (néerlandais) organisent traditionnellement des semaines de perfectionnement pédagogique pour les professeurs de l'enseignement secondaire.

CHAPITRE II

AIDE FINANCIERE ACCORDEE AUX ELEVES DES INSTITUTS DE FORMATION D'ENSEIGNANTS (année scolaire 1964-1965)

A. Bourses octroyées par le Fonds national des études

(a) Nombre de bourses

	<u>Enseignement officiel</u>	<u>Enseignement libre</u>	<u>Total</u>
Enseignement normal moyen	1.375	2.041	3.416
Enseignement normal technique moyen	206	843	1.049
Enseignement normal primaire et gardien	1.372	1.749	3.121

(b) % des élèves qui bénéficient d'une bourse

	<u>Enseignement officiel</u>	<u>Enseignement libre</u>	<u>Total</u>
Enseignement normal moyen	41 %	59 %	50 %
Enseignement normal technique moyen	15 %	34 %	27 %
Enseignement normal primaire et gardien	12 %	12 %	12 %

B. Conditions d'octroi de ces bourses

1. Conditions d'octroi des bourses d'études secondaires

(Enseignement normal gardien)
normal primaire

(a) Conditions générales

Le candidat qui sollicite la bourse pour la première fois doit être âgé de moins de 15 ans au 31 décembre de l'année scolaire envisagée et devra satisfaire à une épreuve organisée par un comité de sélection. Le renouvellement de la bourse est octroyé sur base des résultats scolaires obtenus par le candidat et déclarés suffisants par le comité de sélection. Le redoublement d'une année scolaire est autorisé, pendant cette année de doublement, la bourse ne pourra évidemment être accordée. Mais un second redoublement entraîne l'exclusion définitive du droit de la bourse jusqu'à la fin des études secondaires.

Enfin, la bourse ne peut être octroyée au candidat qui reprend le cours de ses études après une interruption de plus de cinq années.

(b) Ressources familiales du candidat-boursier

Est pris en considération le revenu annuel net du candidat, revenu imposé globalement, cumulé avec celui de la ou des personnes qui ont la charge de son entretien ou y pourvoient. Les ressources ainsi établies ne peuvent dépasser le montant de - 60.000 F. lorsque le candidat pourvoit seul à son entretien ; - 80.000 F. lorsque la personne qui pourvoit à l'entretien du candidat a une personne à charge, ce montant étant augmenté d'une somme de 25.000 F. pour la deuxième personne à charge et d'une somme de 30.000 F. pour chacune des personnes supplémentaires à charge au-delà de la deuxième. Les maxima cités ci-dessus correspondent au chiffre cent de l'index des prix de détail du royaume.

Pour l'année scolaire 1965-1966, l'index dépassant 120 points, au 1er janvier 1965, le revenu considéré pouvait être augmenté de 20 %.

2. Principales conditions d'octroi des bourses d'études supérieures non-universitaires

(Enseignement normal moyen
normal technique moyen)

(a) Conditions générales

(i) Etudiants de première année :

Le candidat doit satisfaire aux conditions suivantes :

- avoir obtenu 60 % des points au moins en dernière année d'études secondaires;
- être âgé de moins de 23 ans au 31 décembre de l'année scolaire envisagée (des dérogations peuvent être admises dans des cas exceptionnels);
- avoir subi avec succès un examen d'admission devant un jury.

(ii) Etudiants de deuxième année d'études et des années ultérieures

Le candidat doit avoir obtenu 60 % des points au moins aux examens de l'année scolaire précédente. En outre, le bénéfice de la bourse est définitivement retiré au candidat qui a redoublé plus d'une fois une année d'études ou qui a redoublé plus d'une année d'études supérieures non-universitaires. Elle ne peut également être octroyée au candidat qui reprend le cours de ses études supérieures non-universitaires après une interruption de plus de cinq années.

(b) Ressources familiales du candidat-boursier

(voir les conditions sous 1. : bourses d'études secondaires)

Le candidat dont le revenu annuel net dépasse le maximum prévu peut bénéficier d'une bourse dont le montant sera égal à la différence qui apparaîtrait entre le montant de la bourse à laquelle il pourrait prétendre si le revenu égalait le dit maximum et la fraction de revenu qui dépasse le dit maximum. Dans ce cas, le montant de la bourse ne pourra être inférieur à la somme de 5.000 F.

C. Prêts octroyés par la Ligue des familles nombreuses

	<u>Nombre de prêts octroyés</u>	<u>Montant</u>
Enseignement normal gardien	83	724.100
Enseignement normal primaire	139	1.128.300
Enseignement normal moyen	48	427.000
Enseignement normal technique moyen	13	77.900

Principales conditions d'octroi de ces prêts :

1. Ces prêts sont réservés aux familles ayant au moins quatre enfants, familles ayant trois enfants à charge et dont la mère est veuve.
2. Le montant de ces prêts qui atteint un certain maximum suivant le niveau des études, peut être diminué par l'organisation.
3. La durée des prêts est limitée à 13 ou à 15 ans suivant le cas; le taux d'intérêt est de 1,5 %.

Notons enfin que ces deux institutions : - le fonds national des études, secteur public, bourses non récupérables; - la ligue des familles nombreuses, secteur privé, prêts remboursables; ne sont pas les seuls à assurer l'aide financière aux étudiants.

Toutefois, les autres organismes n'octroient que des bourses ou des prêts pour des établissements spécialisés ou sous des conditions spéciales.

CHAPITRE III

LE RECRUTEMENT DES ENSEIGNANTS

A. Diplômes requis :

1. Règle générale présidant au recrutement

Pour être nommé à un poste d'enseignant - au niveau (1) de l'enseignement gardien, on doit être titulaire d'un titre du groupe 21 (voir : Annexe B); - au niveau de l'enseignement primaire, on doit être titulaire d'un titre du groupe 23 ou, à défaut, d'un titre pédagogique appartenant au moins au groupe 24;

- au niveau de l'enseignement secondaire inférieur, on doit être titulaire d'un titre du groupe 31 ou, à défaut, du groupe 30 au moins;

- au niveau de l'enseignement secondaire supérieur et au niveau de l'enseignement supérieur, on doit être titulaire, d'un titre du groupe 51 ou, à défaut, du groupe 50;

Pour l'enseignement des spécialités féminines au niveau secondaire supérieur et au niveau supérieur, il suffit d'être titulaire d'un titre du groupe 31.

Par dérogation à la règle qu'un diplômé de l'enseignement secondaire inférieur (régent) ne peut pas enseigner dans un établissement d'enseignement secondaire inférieur et secondaire supérieur, l'arrêté royal du 29 août 1966 mentionne qu'en cas de transformation d'un établissement d'enseignement secondaire inférieur en établissement d'enseignement secondaire inférieur et secondaire supérieur, les membres du personnel enseignant peuvent continuer à exercer les mêmes fonctions sans posséder les titres ou le brevet requis.

En cas de pénurie de candidats des titres requis, sur avis favorable du Conseil de perfectionnement compétent, des dispenses de titre peuvent être accordées pour la nomination ou pour la désignation en qualité de stagiaire.

2. Dérogations

Dans l'enseignement primaire, peuvent être nommées aux fonctions d'instituteur primaire dans une classe du premier degré (= deux premières années) des établissements qui comptent au moins quatre classes des trois premiers degrés d'enseignement primaire :

- (a) Les institutrices d'école gardienne, diplômées avant le 31 décembre 1967, pour autant qu'elles comptent six cents jours de service admissibles donnés dans une classe d'enseignement primaire;
- (b) Les institutrices gardiennes qui n'ont pas obtenu leur diplôme dans les conditions prévues ci-dessus, pour autant qu'elles comptent neuf cents jours de services admissibles donnés dans une classe primaire (2).

(1) Pour le contenu des différents niveaux d'enseignement voir Annexe A.

(2) Ces deux dérogations expliquent l'apparition d'un certain nombre d'institutrices gardiennes dans l'enseignement primaire (voir tableau I (b) de l'Annexe III).

Dans l'enseignement moyen inférieur, les professeurs de langues anciennes doivent être titulaires du diplôme d'agrégé de l'enseignement secondaire supérieur tandis que dans le moyen inférieur organisé dans les athénées et lycées, la nomination en qualité de professeur est subordonnée à la détention d'un titre du groupe 51.

Dans l'enseignement normal primaire, on doit, en plus des dispositions prévues au niveau de l'enseignement secondaire supérieur, prouver une expérience utile de six années pour être nommé aux fonctions de professeur.

Dans l'enseignement technique, on accepte des dérogations, en ce qui concerne la qualification requise, pour l'enseignement de certaines branches techniques ou pratiques, pour la nomination aux fonctions d'assistant ou de chef de travaux, pour l'enseignement des cours de spécialisation etc.

Néanmoins, dans plusieurs cas, on exige en plus une expérience utile complémentaire de quelques années.

Remarquons enfin que les dispositions mentionnées ci-dessus ne valent que pour l'enseignement de l'état; dans l'enseignement libre il y a encore un certain nombre de religieux non porteurs du diplôme requis (1), mais le nombre de religieux dans l'enseignement, diminue de plus en plus.

B. Titularisation

Le maître qui, à partir du 1er septembre 1966, intègre la profession enseignante pour la première fois est successivement :

- désigné en qualité d'agent temporaire;
- désigné en qualité de stagiaire;
- nommé à titre définitif.

Pour être désigné en qualité d'agent temporaire on doit e.a. posséder les titres requis pour la nomination à la fonction, n'avoir pas atteint la limite d'âge fixée à 50 ans (sauf dérogations) et avoir introduit une demande d'emploi. Des stagiaires ne peuvent être désignés que dans des emplois vacants ou déclarés vacants. Ils doivent posséder la qualité d'agent temporaire dans la fonction en cause, avoir exercé effectivement la fonction en cause pendant un an au moins, faire l'objet d'un avis du chef d'établissement ou de l'inspection compétente et posséder les titres requis.

Enfin, on est nommé à titre définitif si on possède la qualité de stagiaire dans la fonction en cause, si on a exercé la fonction en cause pendant deux ans au moins, si on a fait l'objet d'un avis et si on possède les titres requis. Pour bien faire la distinction entre les stagiaires et les agents temporaires, remarquons que ces notions ne sont pas liées à un emploi provisoire ou à un emploi vacant mais bien à la notion d'une période de probation décomposée en deux stades successifs préalables à la nomination définitive. Ce point de vue se justifie comme suit :

- le débutant qui occupe un emploi vacant sans avoir les titres requis, ne mérite pas d'avoir immédiatement la qualité de stagiaire;

- dès qu'un emploi devient vacant, il convient d'abord de le confier à un agent temporaire jusqu'à la fin de l'année scolaire afin de permettre d'attribuer cet emploi, par priorité, à un stagiaire ou à un agent définitif, qui peut légitimement prétendre à une mutation;

(1) Cela ne signifie pas que ces religieux n'ont pas de diplômes convenables mais seulement qu'ils ont des diplômes différents de ceux auxquels l'Etat, en tant que pouvoir organisateur, donne la préférence.

- pour obtenir les avantages résultant de la position de stagiaire, il importe d'avoir eu l'occasion de faire ses preuves pendant un certain temps.

C. Pacte scolaire et nomination

Le pacte scolaire applicable à l'enseignement gardien, primaire, moyen, normal, technique et artistique, a prévu certaines règles et priorités dans le domaine de la nomination des enseignants.

Rappelons tout d'abord le texte de la loi du 29 mai 1959 :

Art. 2 : "Les écoles officielles sont celles qui sont organisées par l'Etat, les provinces, les communes, les associations de communes ou par toute personne de droit public. Les écoles qui ne sont pas officielles sont dites libres. Le pouvoir organisateur d'un établissement d'enseignement est l'autorité, la ou les personne(s) physique(s) ou morale(s) qui en assume(nt) la responsabilité.

Parmi les écoles citées ci-dessus sont réputées neutres celles qui respectent toutes les conceptions philosophiques ou religieuses des parents qui leur confient leurs enfants et dont au moins deux tiers du personnel enseignant sont porteurs d'un diplôme de l'enseignement officiel et neutre". Cette dernière définition représente déjà un premier facteur qui influencera la politique de nomination du personnel enseignant. Les autres se situent dans :

(a) L'enseignement de l'Etat

- Le pacte prévoit pour les fonctions d'institutrice gardienne, d'instituteur primaire et de régent des priorités en fait en faveur des candidats porteurs d'un diplôme délivré par l'enseignement non confessionnel. Cette priorité ne s'applique pas aux surveillants-éducateurs qui ne possèdent pas un diplôme d'enseignement. En ce qui regarde les licenciés, il sera veillé à admettre un pourcentage de 15 à 18 % de diplômés de l'enseignement confessionnel.

D'autre part, il a été précisé que la priorité ne jouerait qu'à égalité de diplôme; dans le cas où un candidat porteur du diplôme normalement requis à l'état, mais délivré par un établissement d'enseignement confessionnel, se trouverait en concurrence avec un candidat sans diplôme ou porteur d'un diplôme autre que le diplôme normalement requis et délivré par un établissement non confessionnel, ce serait le premier des deux candidats qui aurait la priorité. Remarquons enfin que la règle de la priorité ne joue pas pour les promotions.

- La loi du 29 mai 1959 prévoit, pour le cours de religion dans l'enseignement de l'Etat, qu'il faut, tant pour la nomination que pour le maintien en fonction, l'accord entre, d'une part, le pouvoir organisateur, d'autre part, les chefs des divers cultes. Cette même règle s'applique également à l'enseignement officiel autre que celui de l'état (enseignement provincial et communal).

Pour le cours de morale non confessionnelle (qui n'est obligatoire que dans les établissements officiels), la priorité doit être accordée à ceux qui sont porteurs d'un diplôme officiel (dans l'enseignement primaire), ou à un titulaire d'un diplôme d'agrégé délivré par un établissement non-confessionnel (dans l'enseignement secondaire).

(b) L'enseignement provincial et communal

A l'exception des priorités imposées par la loi en ce qui regarde les titulaires du cours de religion et de morale non confessionnelle, les provinces et les communes ont la pleine liberté de nomination du personnel enseignant. Il en résulte qu'un enseignement peut être officiel sans être neutre : ce sera le cas par exemple dans une école communale où moins de deux tiers du personnel a un diplôme délivré par une école officielle et neutre.

(c) L'enseignement libre

L'enseignement libre a, comme pouvoir organisateur, la plus large liberté en ce qui regarde la nomination du personnel enseignant. Toutefois, la subvention versée pour ce personnel est subordonnée à des conditions visant le diplôme dont il est porteur.

D. Situation actuelle en matière de recrutement

Afin d'avoir une certaine idée sur le problème de l'offre et de la demande de personnel enseignant, on a comparé, pour les années 1964, 1965 et 1966, le nombre de candidatures déposées auprès du service "recrutement et promotion du personnel enseignant de l'état" et le nombre de désignations dans l'enseignement de l'Etat. L'évolution constatée pendant les années 1964/65 et 1965/66 indique qu'il y a eu beaucoup de difficultés pour les régents et les institutrices gardiennes à obtenir des postes, la situation étant encore stable pour les autres catégories d'enseignants.

En 1966/67 la situation était la suivante :

Saturation en ce qui concerne le nombre d'institutrices gardiennes, d'instituteurs (trices) primaires et de régent(e)s; situation encore convenable pour les licencié(e)s. Il faut noter l'influence de la loi tendant à limiter le développement des réseaux scolaires étant donné que la loi n'est que temporaire, on peut prévoir que la situation s'améliorera dans le futur.

Il est intéressant de relier cette situation à l'évolution récente du rapport maître/élèves. Ce dernier a évolué ainsi dans l'enseignement primaire et secondaire :

Enseignement primaire (1)

<u>Pouvoir organisateur</u>	<u>Elèves par enseignant</u>		
	1957/58	1960/61	1964/65
Etat	24,3	25,4	24,8
Provinces	32,2	23,4	22,3
Communes	25,5	22,6	21,5
Libre	28,3	24,7	23,6
Total	26,8	23,9	23,0

Enseignement moyen et enseignement technique

<u>Pouvoir organisateur</u>	Enseignement moyen		Enseignement technique	
	Elèves par enseignant			
	1960/61	1964/65	1960/61	1964/65
Etat	-	6,4(2)	-	-
Provinces	-	-	-	-
Communes	-	-	-	-
Libre	11,3(3)	10,5(3)		
Ens. de plein ex.			8,6	7,8
Ens. à hor. réduit			11,5(3)	9,9(3)

(1) Source : Calculs du Centre-Pilote. Cet enseignement primaire comprend l'enseignement : dans les écoles primaires, - dans les internats pour enfants dont les parents n'ont pas de résidence fixe, - dans les classes primaires annexées à tout autre établissement d'enseignement, - dans les écoles et classes d'enseignement primaire spécial.

(2) Source : Calcul du Centre-Pilote.

(3) Source : Annuaire Statistique de l'enseignement catholique. Il faut noter que le chiffre du personnel comprend le personnel enseignant et administratif.

Enfin, une dernière modification est à signaler : à partir du 1er septembre 1968 (1) le nombre d'heures par semaine dans l'enseignement secondaire devra être réduit :

- dans l'enseignement technique à 36 au lieu de 40,
- dans l'enseignement moyen à 32 au lieu de 34 - 35.

(1) Pour la première année des études secondaires inférieures. A partir du 1er septembre 1969, la diminution sera appliquée progressivement d'année en année aux autres années d'études de l'enseignement secondaire.

CHAPITRE IV

QUELQUES ELEMENTS DU STATUT SOCIO-ECONOMIQUE DE L'ENSEIGNEMENT : POSSIBILITES DE PROMOTION ET SYSTEME DE RETRAITE

A. Possibilité de promotion

Les possibilités de promotion à l'intérieur de chaque niveau de l'enseignement de l'état sont les suivantes :

- (1) niveau gardien : institutrice gardienne en chef
- (2) niveau primaire : instituteur primaire en chef
directeur d'école primaire
- (3) niveau secondaire inférieur : chef d'atelier d'enseignement secondaire inférieur
chef de travaux d'atelier d'enseignement secondaire inférieur
sous-directeur d'école secondaire inférieure
directeur d'école secondaire inférieure
- (4) niveau secondaire supérieur : mêmes possibilités que sous (3) mais du niveau supérieur

Conditions de nomination :

1. Règle générale :

Pour être nommé dans le cadre d'une promotion, il faut remplir les principales conditions suivantes :

- posséder, à titre définitif, la qualité de membre du personnel de l'enseignement de l'état;
- avoir atteint l'âge de 30 ans;
- avoir exercé une fonction principale, à prestations complètes, pendant dix ans au moins, en qualité de membre du personnel de l'enseignement de l'état dans la catégorie correspondant à la fonction à conférer;
- être titulaire du brevet de promotion en rapport avec la fonction.

2. Dérogations :

- La nomination aux fonctions d'institutrice gardienne en chef, d'instituteur primaire en chef et de directeur d'école primaire se fait sur proposition d'un jury qui présente une liste de cinq candidats ou plus, choisis parmi ceux qui ont atteint l'âge de 25 ans et qui ont exercé une fonction principale pendant six ans au moins en qualité :

- (a) d'institutrice gardienne, pour la nomination aux fonctions d'institutrice gardienne en chef;
 - (b) d'instituteur primaire, ou de maître spécial pour la nomination aux fonctions d'instituteur primaire en chef ou de directeur d'école primaire.
- Les candidats pour la nomination aux emplois de direction dans les établissements d'enseignement technique de haute spécialisation doivent justifier une expérience utile de dix ans au moins; cette expérience requise est de cinq ans pour les fonctions de direction dans les établissements d'enseignement artistique.

B. Régime de pensions du personnel enseignant

1. Avant la loi de 1961, la pension pouvait être demandée :

- à 65 ans dans l'enseignement technique de l'état
- à 65 ans dans l'enseignement technique libre
- à 55 ans dans l'enseignement moyen et normal de l'état
- à 65 ans dans l'enseignement moyen libre
- à 50 ans dans l'enseignement primaire (1) et gardien, ainsi que dans l'enseignement technique communal
- à 50 ans dans l'enseignement moyen communal, dans l'enseignement normal libre agréé et dans l'enseignement provincial agréé pour les laïcs.

Pour avoir droit à une pension, on exigeait également 30 années de service.

2. La loi de 1961, qui vaut aussi bien pour l'enseignement officiel que pour l'enseignement subventionné (2), stipule dans son titre V (pensions de retraite et de survie à charge des services publics), que toute personne doit avoir atteint l'âge de 65 ans pour avoir droit à une pension de retraite sauf e.a. les membres de l'enseignement gardien, primaire, moyen, normal, technique et artistique qui peuvent (3) solliciter la pension de retraite à partir de 60 ans. Ce nouveau régime ne s'applique qu'aux agents entrés en service après le 31 décembre 1960; il fallait, raisonnablement, respecter les droits acquis des autres. Pour les personnes dont les services ont débuté avant le 1er janvier 1961, il faut faire une distinction.

Si avant l'entrée en vigueur de la loi, elles réunissaient déjà les conditions minimum requises pour avoir droit à une pension, c'est le régime ancien qui sera appliqué sans restriction.

Au cas contraire, leur pension, calculée d'après le régime ancien, subira une réduction de 7 pour cent pour la période comprise entre la date à laquelle cette pension leur aura été accordée et la fin du mois au cours duquel elles atteindront la limite d'âge fixée pour la nouvelle loi (4).

-
- (1) Sauf pour les sections préparatoires de l'enseignement de l'état où on exigeait l'âge de 55 ans, et le primaire autonome où on exigeait l'âge de 65 ans. Dans l'enseignement primaire et gardien libre subventionné, les religieux ne pouvaient demander leur pension qu'à 65 ans.
 - (2) La loi ne s'applique pas aux ministres des cultes auxquels le mariage est interdit et qui jouissent d'un traitement sur le trésor public.
 - (3) Notons ici que les intéressés n'ont nullement "l'obligation" de solliciter leur pension dès l'âge de 60 ans. Dans ce sens, il est pratiquement impossible de parler d'un âge légal de la retraite.
 - (4) L'application de cette réduction de 7 pour cent a été suspendue à partir du 1er janvier 1962.

Un exemple du calcul des pensions :

Pension d'une régente de cours généraux de l'enseignement moyen de l'Etat :

- âge de mise à la pension sur demande	60 ans
- âge d'entrée en fonctions	23 ans
- nombre d'années de services effectifs	37 ans
- bonification pour diplôme	3 ans
- nombre d'années de service comptant pour la pension	40 ans

Pension = 40/55 (1) ou 72 pour cent de la moyenne des traitements des 5 dernières années. (Un fonctionnaire recevra, après une carrière complète 75 % de la moyenne des traitements des 5 dernières années). Les bonifications pour les diplômés, citées ci-dessus se partagent comme suit :

Enseignement	Diplôme	Nombre d'années de bonification
Enseignement technique	pas de bonification	
Enseignement gardien	institutrice gardienne	1
Enseignement primaire	maître spécial	1
	instituteur	2
Enseignement secondaire	régent	3
	licencié	4

Remarquons que ces bonifications sont basées sur le diplôme et non pas sur le niveau dans lequel on enseigne. Un régent par exemple qui enseigne dans l'enseignement primaire jouira de trois années de bonification.

(1) Cette composition s'explique comme suit : chaque année de service passée en qualité de membre du personnel, compte dans la liquidation de la pension à raison de 1/55 de la moyenne du traitement des cinq dernières années.

ANNEXE I

TYPES D'ENSEIGNEMENT COMPOSANT LES DIFFERENTS NIVEAUX
DU SYSTEME D'ENSEIGNEMENT BELGE

1. Le niveau gardien comprend :
 - l'enseignement dans les écoles gardiennes
 - l'enseignement dans les classes gardiennes annexées à tout autre établissement d'enseignement
 - l'enseignement dans les écoles et les classes d'enseignement gardien spécial.
2. Le niveau primaire comprend :
 - l'enseignement dans les écoles primaires
 - l'enseignement dans les internats pour enfants dont les parents n'ont pas de résidence fixe
 - l'enseignement dans les classes primaires annexées à tout autre établissement d'enseignement
 - l'enseignement dans les écoles et les classes d'enseignement primaire spécial.
3. Le niveau secondaire inférieur comprend :
 - l'enseignement moyen du degré inférieur
 - le cycle secondaire inférieur de l'enseignement technique et de l'enseignement artistique
 - l'enseignement secondaire spécial.
4. Le niveau secondaire supérieur comprend :
 - l'enseignement moyen du degré supérieur
 - le cycle secondaire supérieur de l'enseignement technique et de l'enseignement artistique
 - l'enseignement normal gardien
 - l'enseignement normal primaire
 - l'enseignement normal technique primaire
5. Le niveau supérieur comprend :
 - l'enseignement normal moyen
 - l'enseignement technique et artistique supérieur
 - l'enseignement normal technique moyen et normal technique supérieur.

ANNEXE II

CLASSIFICATION DES TITRES DANS LE SYSTEME D'ENSEIGNEMENT BELGE

<u>Groupes</u>	<u>Titres correspondants</u>
21	1. Le diplôme d'institutrice gardienne 2. Le diplôme d'aptitude à l'enseignement gardien spécial
23	1. Le diplôme d'instituteur primaire 2. Le diplôme d'aptitude à l'enseignement primaire ou à l'enseignement primaire spécial 3. Le certificat d'école normale technique primaire
24	Le certificat d'aptitude à l'enseignement secondaire inférieur.
30	1. Le diplôme de cours techniques supérieurs du premier degré 2. Le diplôme universitaire de candidat 3. Le diplôme d'école technique supérieure du premier degré 4. Le certificat, diplôme, brevet ou licence d'enseignement maritime du cycle supérieur 5. Le certificat ou diplôme d'enseignement artistique du premier degré 6. Le certificat d'aptitude à la tenue d'une bibliothèque scolaire 7. Le brevet d'école professionnelle secondaire complémentaire 8. Le diplôme de géomètre-expert immobilier
31	1. Le diplôme d'agrégé de l'enseignement secondaire inférieur 2. Le diplôme d'aptitude à l'enseignement secondaire inférieur
50	1. Les diplômes de licencié, docteur, pharmacien ou ingénieur 2. Le diplôme d'enseignement technique supérieur du troisième degré 3. Le diplôme d'ingénieur commercial 4. Le diplôme ou certificat de fin d'études des sciences administratives 5. Le brevet d'officier délivré par la division polytechnique de l'école royale militaire 6. Le certificat ou diplôme d'enseignement artistique supérieur du troisième degré
51	1. Le diplôme d'agrégé de l'enseignement secondaire supérieur 2. Le diplôme d'aptitude à l'enseignement secondaire supérieur

ANNEXE III

ANNEXE STATISTIQUE

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Tableau I

Nombre d'enseignants dans l'enseignement primaire et secondaire (moyen et technique) (1950-1954-1959-1964)

	1950/51		1954/55		1959/60		1964/65	
	HF	F	HF	F	HF	F	HF	F
Enseignement primaire	34.120	-	36.050	-(1)	39.156	-	43.077	23.645
Enseignement moyen	9.500	-	11.700	-	15.500	-	-(3)	-(3)
Enseignement technique (2)	15.080	-	16.240	-	18.700	-	-(4)	-(4)

Source : 1950, 1954, 1959 : C. D'Hoogh : Problèmes économiques de l'enseignement CEPSPT Bruxelles 1963. (Primaire 1964 : Centre-Pilote).

Notes : (1) La publication de l'UNESCO "L'éducation dans le monde" Tome II pour un total (HF) de 34.027 enseignants (chiffre incluant les enseignants de l'enseignement spécial mais excluant ceux des sections primaires des écoles secondaires publiques) donne un chiffre d'enseignants (F) de 18.662.

(2) Les sections techniques supérieures sont certainement incluses mais ne peuvent être isolées; il s'agit des professeurs à charge complète dans les deux systèmes d'enseignement technique à plein temps et à mi-temps.

(3) Pour l'enseignement de l'Etat on a un total de HF 16.264 et F. 6.322; pour l'enseignement libre, on a un total de HF 15.724 et F 6.731 (ceci pour 1964 : Annuaire Statistique de l'enseignement catholique 1964/65).

(4) D'après le budget le total du personnel de l'Etat serait en 1964 de 13.072 dont il conviendrait de retrancher le personnel administratif (1.291), 1.306 personnes membres du personnel subalterne (personnel de maîtrise, gens de métiers et de service) et 54 inspecteurs; ceci donnerait un chiffre de HF 10.421 pour le corps enseignant, le personnel scientifique et les directeurs et chargés de cours du soir de l'Etat (on ne peut dire s'il s'agit d'enseignants à charge complète uniquement); dans l'enseignement libre en 1964 on comptait 25.047 enseignants (HF) dont 13.181 femmes (F) dans l'enseignement technique à temps plein et 2.867 (HF), F 542 dans l'enseignement à mi-temps.

Tableau II (a)

Nombre d'enseignants à charge complète employés dans l'enseignement primaire (élémentaire + supérieur)
par qualification pour l'année 1964-1965

Qualification	1964-1965				
	Etat	Provincial	Communal	Privé	Total
a. Diplômés de l'enseignement normal moyen	177	2	162	180	521
b. Diplômés de l'enseignement normal primaire	5.277	68	16.065	23.262	44.672
c. Diplômés de l'enseignement normal gardien	52	-	86	307	445
d. Diplômés de l'enseignement normal moyen + primaire	36	1	65	86	188
e. Instituteurs de complément	6	-	4	10	20
f. Autres	14	-	12	45	71
g. Total	5.562	71	16.394	23.890	45.917

Source : Centre-Pilote

Note : La différence entre les chiffres employés dans les tableaux I et II (a) s'explique par le fait que, dans le tableau I on a compté uniquement le personnel enseignant tandis que dans le tableau II (a) le chiffre total comprend aussi certaines catégories du personnel administratif comme par exemple, les directeurs sans classe.

Tableau II (b)

Nombre d'enseignants à charge complète employés dans l'enseignement primaire (élémentaire + supérieur) communal
par sexe, par état civil et par groupes d'âge pour l'année scolaire 1964-1965

	Moins de 25 ans	25-29	30-34	35-44	45-54	55-64	65 ans et au-delà	Total
H : Laïcs	732	1.790	1.161	2.279	2.033	937	11	8.943
F : Laïques								
Mariées	171	733	663	1.504	930	295	2	4.298
Célibataires	466	536	236	342	330	200	10	2.120
Religieuses	1	7	8	58	58	53	18	203
Total	1.370	3.066	2.068	4.181	3.351	1.485	41	15.564
Total F	638	1.276	907	1.902	1.318	548	30	6.619

Source : Centre-Pilote

Note : (Voir note sous tableau II (a)).

Tableau II (c)

Nombre d'enseignants à charge complète employés dans l'enseignement primaire (élémentaire + supérieur) privé

Par sexe, par état civil et par groupes d'âge pour l'année scolaire 1964-1965

	Moins de 25 ans	25-29	30-34	35-44	45-54	55-64	65 ans et au-delà	Total
H. Laïcs	1.211	1.442	921	1.705	1.386	561	18	7.244
Religieux	32	45	57	129	127	92	21	503
Laïques mariées	329	942	573	1.145	661	185	7	3.842
F. Laïques célibataires	3.288	1.372	518	1.055	867	336	8	7.444
Religieuses	18	155	243	789	876	925	229	3.235
Total	4.878	3.956	2.312	4.823	3.917	2.099	283	22.268
Total F.	3.635	2.469	1.334	2.989	2.404	1.446	244	14.521

Source : Centre-Pilote.

Note : (pour les tableaux II(b) et II(c) : il faut noter que ces structures par âge sont hypothétiques dans ce sens qu'on disposait seulement de la structure par âge du nombre de charges dans l'enseignement primaire autonome pour chaque pouvoir organisateur. On peut accepter que le nombre de charges corresponde à un nombre égal de personnes étant donné qu'on a exclu les maîtres spéciaux du nombre total des enseignants. D'autre part, le primaire autonome groupant la majorité des maîtres dans l'enseignement primaire communal (13.752 sur un total de 15.564) et dans l'enseignement primaire privé (21.989 sur un total de 22.268), nous pouvons supposer que la structure par âge ne sera pas modifiée en appliquant la structure du primaire autonome sur la totalité de l'enseignement primaire communal et privé. L'enseignement provincial n'a pas été pris en considération vu son importance très réduite (66 maîtres); enfin, l'enseignement de l'Etat posait deux problèmes : (a) l'impossibilité de traiter séparément l'enseignement gardien et l'enseignement primaire; (b) le fait que le primaire autonome ne représente qu'une très petite partie du total (par exemple, en 1963-64 : 10 % du nombre d'élèves) pour ces deux raisons, il nous a été impossible de calculer une structure par âge plus ou moins significative des enseignants de l'enseignement primaire de l'état. Ce n'est qu'à partir de 1968 qu'on aura des renseignements valables dans ce domaine.

Tableau III (a)

Nombre d'enseignants avec charge complète ou charge complète et incomplète employés dans l'enseignement
secondaire général moyen de l'Etat par qualification, par sexe et par grandes catégories de disciplines (1)
pour l'année 1964-65

	Sciences		Humanités		Autres disciplines		Total	
	HF	F	HF	F	HF	F	HF	F
(a) Diplômés de l'enseignement supérieur universitaire	1.035	360	3.025	1.082	1.546	405	5.606	1.847
(b) Diplômés de l'enseignement supérieur non-universitaire	1.485	700	3.560	1.637	3.378	1.760	8.423	4.097
(c) Autres diplômés	44	13	101	38	2.090	327	2.235	378
Total	2.564	1.073	6.686	2.757	7.014	2.492	16.264	6.322

Source : Tableau élaboré par le Centre-Pilote.

Notes : (1) Sciences : Mathématiques, sciences naturelles, physique, chimie, biologie.

Humanités : Histoire, géographie, espagnol, italien, anglais, allemand, latin-grec, néerlandais, français.

Autres disciplines : Religion, morale, cours techniques et pratiques pour garçons, cours techniques et pratiques pour filles, sciences commerciales, sciences économiques et sociales, musique, dessin et éducation plastique, éducation physique, autres.

Tableau III (b)

Nombre d'enseignants avec charge incomplète employés dans l'enseignement secondaire général (moyen) de l'Etat
par qualification, par sexe et par grandes catégories de disciplines (1) pour l'année 1964-65

	Sciences		Humanités		Autres disciplines		Total	
	HF	F	HF	F	HF	F	HF	F
(a) Diplômés de l'enseignement supérieur universitaire	32	22	91	65	162	42	285	129
(b) Diplômés de l'enseignement supérieur non-universitaire	56	37	96	62	487	357	639	456
(c) Autres diplômés	3	1	3	3	557	87	563	91
Total	91	60	190	130	1.206	486	1.487	676

Source : Tableau élaboré par le Centre-Pilote.

Note : (1) Voir note (1) Tableau III (a).

Tableau III (c)

Nombre d'enseignants avec charge complète ou charge complète + incomplète employés dans l'enseignement moyen (secondaire général) de l'Etat par qualification, par sexe et par groupes d'âges pour l'année 1964-65

	Moins de 25 ans		25-29		30-34		35-44		45-54		55-64		65 ans et au-delà		Total	
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F
(a) Diplômés de l'enseignement supérieur universitaire	525	266	1197	529	886	318	1622	426	1096	254	274	54	6	-	5606	1847
(b) Diplômés de l'enseignement supérieur non universitaire	1455	818	2633	1236	1574	617	1620	872	830	409	311	145	-	-	8423	4097
(c) Autres diplômés	100	12	343	52	442	62	714	130	450	92	180	30	6	-	2235	378
Total	2080	1096	4173	1817	2902	997	3956	1428	2376	755	765	229	12	-	16264	6322

Source : Tableau élaboré par le Centre-Pilote.

Tableau III (d)

Nombre d'enseignants avec charge incomplète employés dans l'enseignement moyen secondaire général de l'Etat par qualification, par sexe et par groupes d'âges pour l'année 1964-1965

	Moins de 25 ans		25-29		30-34		35-44		45-54		55-64		65 ans et au-delà		Total	
	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F	HF	F
(a) Diplômés de l'enseignement supérieur universitaire	30	16	73	29	56	30	75	37	34	15	13	2	4	-	285	129
(b) Diplômés de l'enseignement supérieur non universitaire	261	188	193	129	93	66	66	54	20	15	6	4	-	-	639	456
(c) Autres diplômés	34	11	77	16	74	20	177	24	127	14	70	6	4	-	563	91
Total	325	215	343	174	223	116	318	115	181	44	89	12	8	-	1487	676

Source : Tableau élaboré par le Centre-Pilote.

Tableau IV

Inscrits en première année, effectif total et diplômés des écoles normales d'instituteurs
par sexe 1950-1965

	1949/50		1954/55		1959/60		1964/65 (1)	
	HF	F	HF	F	HF	F	HF	F
Inscrits en première année	-	-	3.245	1.781	4.998	2.560	5.478	3.010
Effectif total	8.814	-	10.360	5.987	13.224	7.284	18.024	9.886
Diplômés	1.439	-	1.885	1.093	2.566	1.342	3.287	1.846

Source : Annuaire statistique de l'Enseignement sauf 1949/50 : Source : Centre-Pilote.

Note (1) : Diplômés 1963/64.

Tableau V

Effectif total et diplômés des écoles normales moyennes, par sexe et grand groupe de disciplines
(1952-1965)

	1952/53		1954/55		1959/60		1964/65 (1)	
	HF	F	HF	F	HF	F	HF	F
Effectif total	-	-	2.663	1.251	5.056	2.052	6.765	3.788
dont : Sciences (2)	-	-	852	404	1.759	638	2.373	1.283
Humanités (3)	-	-	1.542	739	2.618	1.169	3.816	2.198
Autres disciplines (4)	-	-	269	108	679	245	576	307
Diplômés total	717	362	930	480	1.607	730	2.811	1.514
dont : Sciences (2)	226	120	281	150	551	239	1.054	501
Humanités (3)	491	242	581	296	833	400	1.480	858
Autres disciplines (4)	-	-	68	34	223	91	277	155

Source : Annuaire statistique de l'Enseignement.

Notes : (1) Diplômés : 1963/64.

(2) Source : Section mathématiques physiques et section sciences-géographie pour 1959/60 et 1963/64; antérieurement section scientifique.

(3) Humanités : section langue maternelle, histoire et section langues modernes; pour 1959/60 et 1963/64 antérieurement section littéraire, et section germanique.

(4) Autres disciplines : section éducation physique et section arts plastiques.

Tableau VI

Nombre de nouvelles admissions, effectif total et diplômés dans l'enseignement supérieur universitaire
par sexe et par catégories de disciplines et données relatives aux étudiants se préparant à la profession enseignante
dans l'enseignement secondaire général (1950-1965)

	1949/50		1954/55		1959/60		1964/65	
	HF	F	HF	F	HF	F	HF	F
Nouvelles admissions (1)								
1. Sciences								
Nombre total des inscriptions	297	88	710	184	1.148	264	1.650	500
2. Humanités								
Nombre total des inscriptions	397	178	793	339	1.186	511	1.755	869
3. Autres disciplines								
Nombre total des inscriptions	3.778	557	3.989	624	4.833	800	8.322	1.749
Effectif total								
1. Sciences								
(a) Nombre total des inscriptions	1.285	337	2.243	575	4.159	1.040	6.265	1.668
(b) Dont : se préparant à la profession enseignante	179	57	321	114	711	234	1.096	352
2. Humanités								
(a) Nombre total des inscriptions	1.496	668	2.821	1.243	4.618	1.907	7.151	3.153
(b) Dont : se préparant à la profession enseignante	340	175	734	356	1.053	461	1.665	727
3. Autres disciplines								
(a) Nombre total des inscriptions	18.704	2.366	20.128	2.689	24.656	3.620	34.447	5.956
(b) Dont : se préparant à la profession enseignante	126	44	248	73	863	192	1.164	294
Diplômés								
1. Sciences								
(a) Nombre total des diplômés	289	80	478	153	796	242	1.161	335
(b) Nombre total des diplômés d'agrégation de l'enseignement secondaire supérieur	85	29	162	63	282	105	353	131
2. Humanités								
(a) Nombre total des diplômés	404	170	626	307	856	356	1.195	504
(b) Nombre total des diplômés d'agrégation de l'enseignement secondaire supérieur	171	76	275	144	359	150	470	205
3. Autres disciplines								
(a) Nombre total des diplômés	2.937	347	3.365	492	3.809	634	4.357	687
(b) Nombre total des diplômés d'agrégation de l'enseignement secondaire supérieur	106	36	194	52	305	102	301	96

Source : Tableau élaboré par le Centre-Pilote.

Note (1) : Les cours de formation à la profession enseignante ne sont pas délivrés au cours de la 1ère année d'études.

Tableau VII

Effectif total et diplômés par sexe de l'enseignement normal technique à plein temps et à temps partiel
(1952-1965)

	1952/53		1954/55		1959/60		1964/65 (1)	
	HF	F	HF	F	HF	F	HF	F
<u>Enseignement normal technique moyen</u>								
Effectif total	2.173	2.114	3.049	2.964	2.444	2.310	3.366	2.678
Diplômés	859	859	1.145	1.145	944	929	1.222	994
<u>Perfectionnement technique</u> (secondaire complémentaire)								
Effectif total	231	231	316	316	334	334	455	455
Diplômés	-	-	-	-	150	150	203	203
<u>Cours normaux techniques primaires</u> (temps partiel)	-	-	-	-	2.588	40	3.893	506

Source : Annuaire statistique de l'Enseignement.

Note : (1) Diplômés 1963/64.

Tableau VIII

Effectifs scolaires au niveau de l'enseignement primaire et secondaire 1950-1965

	1950/1951	1954/1955	1959/1960	1964/1965
Primaire	810.700	909.500	960.300	990.386
Secondaire général	129.000	147.000	218.000	277.152
Secondaire technique				
plein temps	125.300	135.100	206.500	293.470
temps partiel	103.000	100.500	112.100	136.044
total	228.300	235.600	316.300	429.514

Source : 1950, 1954, 1959 : C. D'Hoogh, Problèmes économiques de l'enseignement CEPSPT, Bruxelles 1963.

1964 : Annuaire statistique de l'Enseignement.

UNITED KINGDOM

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PREFACE

The programmes of the OECD Committee for Scientific and Technical Personnel have given considerable attention to the problems connected with the demand for and supply of teachers as a vital element in the quantitative and qualitative development of the educational system. The quest for an equilibrium between supply and demand calls for the implementation of specific training, recruitment and utilisation policies in what is one of the most important sectors of highly qualified manpower.

Questions concerning the demand for and supply of teachers arose in several studies carried out by the OECD, particularly in connection with (a) general studies on scientific and technical personnel in OECD countries, (b) general policy and planning in the field of education in Member countries, (c) the recruitment and training of mathematics and science teachers.

In order to take stock of the current and future teacher situation in primary and secondary education, both from a quantitative and qualitative point of view, the Committee requested the Secretariat to prepare a general policy report on this question which would be based on the experience and data put together for a number of OECD countries in the form of individual country case studies.

This report represents the United Kingdom's contribution to the series of case-studies on the training, recruitment and utilisation of teachers in primary and secondary education. The report follows the lines proposed by the Secretariat and is divided into three sections describing the position in England and Wales, Scotland and Northern Ireland. These sections were prepared by the Department of Education and Science, the Scottish Education Department and the Northern Ireland Ministry of Education, respectively.

PART ONE

ENGLAND AND WALES

CHAPTER I

THE EDUCATIONAL SYSTEM OF ENGLAND AND WALES (1)

There are three stages in the English and Welsh system : primary, secondary and further (including higher) education. The years of compulsory schooling are from 5 to 15 (from 1972-1973 the minimum leaving age will be 16). The transition from primary to secondary school is made between 10 1/2 and 12 years. No fees are payable in any publicly maintained school (but it is open to parents, if they choose, to pay for their children to attend other schools). The third stage is voluntary although financial assistance is generally available. It includes the technical colleges where some secondary courses may be taken and the colleges of education and university departments of education where most teachers are trained. The other branches of further and higher education - universities, youth service and more advanced systematic courses of further education - are outside the scope of this study.

A. Maintained schools

Either the whole or the main portion of each of the following chapters is concerned with teachers in the maintained schools. These are the primary and secondary schools maintained by local education authorities to which pupils are admitted free of charge. There are about 29,000 such schools with a pupil population exceeding 7,100,000.

(1) Primary Schools

In January 1966, there were 23,000 primary schools with over 4,300,000 pupils. Nearly a half had between 100 and 300 children each; most of the rest were smaller than this. Rather more than 2,000 of these primary schools are in Wales. About half of the primary schools take the complete age-range from 5 to 11. About a quarter take infants only, up to about 7 years; most of the rest take juniors only, 7 to 11 years. The great majority of all of these schools take boys and girls.

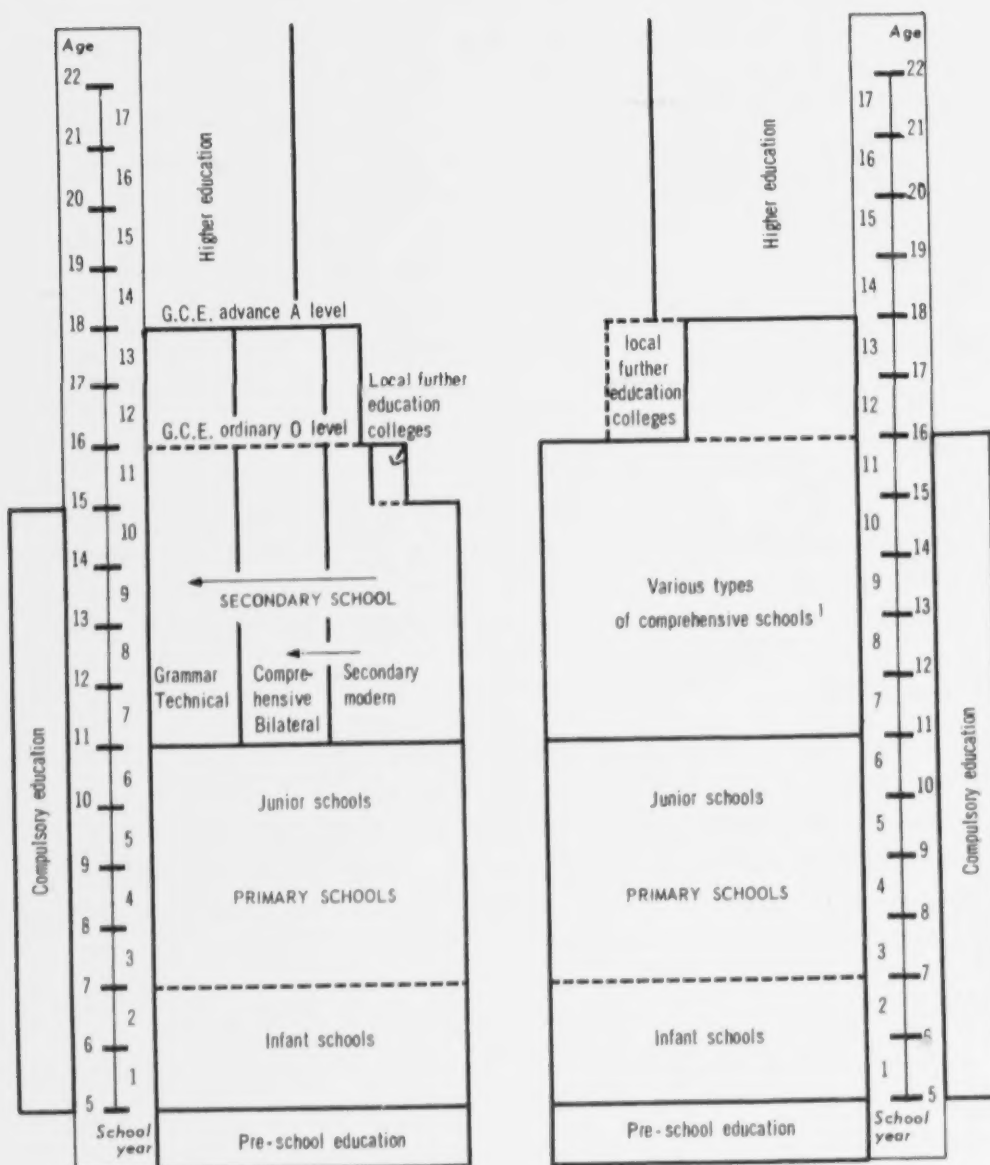
(2) Secondary Schools

There is on the average one secondary school for every four primary schools, over half of them taking between 300 and 600 children. They had 2,800,000 pupils in January 1966.

The organisation of secondary education varies from one part of the country to another. At present the biggest group of schools are the modern schools, which provide a general education up to the minimum school-leaving age, though pupils can - and increasingly do - stay on beyond that age. There are 3,600 of these schools and they have over 1,500,000 pupils - three-fifths of them in mixed schools. The next group in size comprises the grammar schools, which provide a mainly academic course for pupils from age 11 to 18.

(1) This text is based largely on "The Educational system of England and Wales", booklet issued by the Department of Education and Science, 1966.

DIAGRAM OF THE OLD AND THE NEW STRUCTURE
OF THE EDUCATIONAL SYSTEM OF ENGLAND AND WALES



Note: (1): see Chapter 1A.3.

There are nearly 1,300, with a roll approaching 715,000; two-thirds are for boys or girls only. There are also a number of technical schools, the academic equals of grammar schools, but specialising in technical studies, and various combinations of grammar, technical and modern schools. There are also about 390 fully comprehensive schools.

Since July 1965, local authorities have been preparing plans for reorganisation under which all secondary schools would become comprehensives. There are various ways in which comprehensive education may be developed, depending on local circumstances, and it is accepted that an authority may adopt more than one form of organisation in the area for which it is responsible. Six main comprehensive systems have been proposed :

- (i) The orthodox comprehensive school with an age range of 11 to 18 years.
- (ii) A two-tier system whereby all pupils transfer at 11 to a junior comprehensive school and all go on at 13 or 14 to a senior comprehensive school.
- (iii) A two-tier system under which all pupils on leaving primary school transfer to a junior comprehensive school, but at the age of 13 or 14 some pupils move on to a senior school while the remainder stay on in the same school.
- (iv) A two-tier system in which all pupils on leaving primary school transfer to a junior comprehensive school. At the age of 13 or 14 all pupils have a choice between a senior school, catering for those who expect to stay at school well beyond the compulsory leaving age, and a senior school catering for those who do not.
- (v) Comprehensive schools with an age range of 11 to 16 combined with sixth-form colleges for pupils over 16.
- (vi) A system of middle schools which straddle the primary/secondary age ranges. Under this system pupils transfer from a primary school at the age of 8 or 9 to a comprehensive school with an age range of 8 to 12 or 9 to 13. From this middle school they move on to a comprehensive school with an age range of 12 or 13 to 18.

B. Non-Maintained schools

In addition to the schools described so far there are just under 3,800 non-maintained schools. Fees are charged in all these schools, about 3,400 of which (with 450,000 pupils) are independent, receiving no grants from public funds. All independent schools, however, have to be officially registered and are open to inspection and some 1,540 of them (with 309,000 pupils) have reached a sufficiently high standard for recognition as efficient by the Secretary of State. Some independent schools (usually those in membership of the Headmasters Conference, the Governing Bodies Association or Governing Bodies of Girls' Schools Association) are known as public schools. It is the desire of the Government that the public schools should make the maximum contribution to meeting the educational needs of the country as a whole. A commission has been set up under the chairmanship of Sir John Newsom (covering Scotland as well as England and Wales) to advise on the best way of integrating the public schools with the state system of education.

The remaining non-maintained schools (323 with 125,000 pupils) receive some form of grant from the Government. The principal group is the 179 direct grant grammar schools which take pupils paid for by local education authorities in addition to those whose fees are paid partly or wholly by parents. Education authorities and governors have been asked to study ways in which direct grant grammar schools might be associated with

authorities' plans for adopting a comprehensive system of secondary organisation so that they may participate fully in local schemes. The Public Schools Commission has been asked additionally to advise on how best the schools' participation in the movement towards comprehensive reorganisation might be effected and to review the principle of central government grant to these schools.

C. Special Schools

There are in addition nearly 800 maintained and over 100 non-maintained special schools where handicapped pupils are provided with special educational treatment. (The teachers are trained and qualify in the same way as other teachers and enjoy the same terms and conditions of employment. For these reasons, separate references have not been made to these teachers in what follows. It should, however, be noted that additional training is required of teachers for blind, deaf and partially hearing children, and other teachers in special schools are encouraged to undertake the appropriate specialist training).

D. Further Education

Not all pupils taking secondary courses are found in secondary schools, either maintained or non-maintained. Some between the ages of 15 and 18 pursue their studies in Colleges of Further Education so that it is necessary to make some reference to this sector in later chapters. In September 1965 there were 43,397 young men and 50,597 young women between the ages of 15 and 18 taking full-time and sandwich courses in some 500 Colleges of Further Education. Most of these were taking courses leading to recognised qualifications such as the General Certificate of Education at advanced and ordinary levels and to Ordinary National Diplomas in technical and commercial subjects.

In addition there were 234,253 young men and 57,446 young women between the ages of 15 and 18 attending these colleges on a day or block release basis from their employment. (These numbers represented 31.6 and 7.4 per cent of those in employment in this age group). These courses included those for operatives and apprentices and other intending craftsmen leading to the examinations of the City and Guilds of London Institute and the Regional Examining Unions and courses for technicians leading either to the various technician qualification of the City and Guilds or to Ordinary National Certificates.

E. Role of Local Education Authorities

Responsibility for providing education (other than in universities) rests with 162 local education authorities. These are the elected councils of counties and county boroughs and the outer London boroughs; the Inner London Education Authority being a specially constituted statutory committee of the Greater London Council. Seventeen of the local education authorities are in Wales. The councils appoint education committees, comprising some of their own members (a majority of the committee) and some persons with experience in education and knowledge of local educational conditions. The education authorities build schools (with some exceptions), pay teachers and provide equipment and materials. It is their duty to secure that there is efficient education - at the three progressive levels, primary, secondary and further - to meet the needs of the local population. What is taught is normally decided on their behalf by the head teachers of schools.

The cost is met mainly from rates (a local property tax) and from a general grant from the national Exchequer. The grant relates to a range of local government services, of which education is the largest. About 60 per cent of what local authorities spend on these services comes from the central government. The system which has operated since 1959-1960 is now being changed. Under proposals recently announced by the Government, the total of Exchequer assistance will increase progressively in and after 1967-1968 pending a re-examination of the whole position following a comprehensive review of local government being undertaken by a Royal Commission.

Some of the powers of local education authorities are exercised on their behalf in certain county areas by Excepted Districts and Divisional Executives. Neither Excepted Districts nor Divisional Executives, however, can levy a rate or borrow money.

F. Role of the Department of Education and Science

As has been indicated, much of the cost of education is found locally from the rates and this is an important element in the local control of education. The grants for educational services which come from the central government are, however, substantial and have a significance beyond their size, since they are made under the Local Government Act, which enables Regulations to be made prescribing standards and general requirements for the educational services concerned - for example, the Schools Regulations, 1959. In addition to those powers, the Department has other powers derived mainly from the Education Act, 1944, and exercised directly through Regulations. This Act, though subsequently amended by a succession of Acts between 1946 and 1964, still remains the basis of the present educational system. Much of the Department's influence is exerted through advice, consultation and persuasion, without recourse to statutory powers.

The Secretary of State, the political head of the Department, is a member of the Government of the day, and is assisted by three Ministers of State and a Parliamentary Under-Secretary. The Department is staffed by civil servants, whose appointments are not dependent on political considerations. Their work is organised in branches concerned with schools, further education, teachers and kindred subjects in England and Wales, universities in Great Britain, and with civil science. Specialist branches for health, buildings, planning, law and information are available to provide professional advice for all branches. The Department's responsibilities in Wales are looked after by the Education Office for Wales, whose headquarters is in Cardiff.

The Department does not run any schools or technical colleges, or engage any teachers, or prescribe any textbooks or curricula, but it does :

- set minimum standards of educational provision;
- control the rate, distribution, nature and cost of educational building;
- control teacher training and supply and determine the principles governing recognition of teachers as qualified;
- administer a superannuation scheme for teachers;
- arrange for the incorporation of estimates of local education expenditure in provision for general grant;
- support financially by direct grant a limited number of institutions of a special kind;
- support some research at all levels within the educational system, through the agency of the National Foundation for Educational Research, university departments and other bodies;

- settle disputes, for example, between a parent and a local education authority, or between a local education authority and the managers of a school.

Two Central Advisory Councils (one for England and one for Wales) advise the Secretary of State on matters connected with educational theory and practice, usually on subjects specifically referred to them. Discussions are held on important matters at national level with representative bodies such as local authority associations, teachers' associations and bodies representing religious interests. There are also three National Councils concerned with specific aspects of the education service : further education; the training and supply of teachers; and art education.

G. Role of the Inspectorate

The primary function of Her Majesty's Inspectorate is to report to the Secretary of State on schools and other educational establishments other than universities. All schools, maintained and non-maintained, are open to inspection. H.M. Inspectors also offer advice and discuss day-to-day problems with local education authorities, colleges and schools. The Inspectorate gives professional educational advice to the Department, provides a focus for educational developments, conducts courses for serving teachers and prepares advisory pamphlets.

CHAPTER II

THE DEMAND AND SUPPLY OF TEACHERS

Separate major studies have recently been completed of the future demand and supply of teachers in both the maintained schools (1) and further education (2). Whilst, they were presented as the reports of an independent advisory body, the statistical work on which they were based was done by the Department.

The following notes may help towards an understanding of these reports.

A. Maintained Schools

(1) The position since the war

Three factors have increased the demand for teachers since the war and will have a bearing on future demand.

(i) Birth-rate

The rise in the birth-rate immediately after the war reached its peak in 1947 and fell away in the early 1950's. A second surge began in 1957, and lasted until mid-1964. A subsidiary but important consideration since the 1950's has been the effect of immigration on school population. School rolls which (in round figures) totalled 5 million in 1945 were 7 millions by 1964, and may be nearly 8 millions by 1970 and nearly 10 millions by 1980.

(ii) Higher Staffing Standards

Before the war, accepted staffing standards were 50 pupils in junior elementary school classes, 40 in senior elementary classes and 30 in grammar school classes. (An elementary school took children up to 14 years apart from those who transferred to grammar school at 11). Since the war, the prescribed standards have been 40 children in primary school classes (up to age 11) and 30 in secondary school classes.

(iii) Length of the school course

The school leaving-age was raised from 14 to 15 in 1947. The tendency for children to stay on voluntarily beyond the statutory leaving age has grown consistently and is expected to go on doing so.

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- (1) The Ninth Report of the National Advisory Council for the Training and Supply of Teachers on the Demand for and Supply of Teachers in Primary and Secondary Schools, 1963-1986.
 - (2) The National Advisory Council for the Training and Supply of Teachers Report of the Standing Sub-Committee on Teachers for Further Education on Supply and Training of Teachers for Further Education.

Two factors have held back the growth of the teacher force.

(i) Length of Training

By the mid-1950's it was thought that the school population (enlarged by the high birth-rate in the years immediately after the war and by the raising of the school leaving age to 15 in 1947) would flatten out in the 1960's and that the demand for teachers, measured by the need to eliminate oversize classes, would be overtaken by supply by about the middle of the decade. It was in this context that the decision was made to extend the normal teacher training course from two years to three, with effect from 1960. The decision to make this reform was adhered to, although by the late 1950's it was clear that staffing prospects were considerably less favourable than had been supposed. Not only did this mean the loss of nearly a full year's output of teachers in 1962-1963 but each training place now produces a teacher once every three years instead of once every two years.

(ii) Wastage

Higher birth-rates have meant increased losses of young women teachers early in their career and this is the most damaging cause of wastage. It is not the only cause, however. The expansion of higher education has provided additional openings for teachers, and men in particular have been lost to the schools on this account. Over recent years, both men and women teachers have had increasing opportunities to serve abroad during some part of their career and the government give them official encouragement through the National Council for the Supply of Teachers Overseas.

At the present time the shortage of qualified teachers is felt most acutely in the infants schools and the infants classes of primary schools. These are largely staffed by women and are bearing the brunt of the second post-war bulge in the birth-rate. Whilst most children are still being admitted to school at the beginning of the term in which they are five, perhaps a third of the age-group are having to wait until they have become five and in a few cases even longer. There is evidence that this position would be even worse (or that the proportion of oversize classes in infants schools would be a great deal higher than at present) if a large number of unqualified teachers were not employed. In the teacher force as a whole the proportion of unqualified teachers is about 4 per cent but in areas covering a sixth of the country, 10 per cent of teachers in charge of infants classes are unqualified.

The shortage of teachers in secondary schools, though usually less acute than in the primary schools, is also serious, particularly in respect of teachers of mathematics and science.

In both primary and secondary sectors, however, there has been a steady improvement in staffing over recent years, as is shown by the following table. This compares the number of pupils with the number of teachers (including unqualified teachers).

Table 1

Pupil teacher ratios in maintained schools

Year	Level	Primary	Secondary
1955		31.4	20.6
1960		29.2	20.8
1964		28.8	19.2
1965		28.3	18.7

The recent improvement in the pupil/teacher ratios owes something to the increased emphasis on part-time teaching. This development is covered in detail in Chapter IV but it might be convenient to record here the growth in part-time service.

The following table shows the full-time equivalent of part-time teachers reckoned as a percentage of the full-time teaching force :

Table 2

Full-time equivalent of part-time teachers
as a percentage of the full-time teaching force

Year	Level	Primary	Secondary
1955		0.6	2.1
1960		1.8	3.6
1964		4.1	5.4
1965		4.9	6.1

The next table shows the increase in terms of numbers.

Table 3

Increase of the part-time teachers

Year	Part-time teachers in service		Full-time equivalent of part-time teachers in service	
	Primary	Secondary	Primary	Secondary
1955	2.509	4.951	827	1.957
1960	5.012	9.200	2.506	4.600
1964	13.022	15.516	5.731	7.620
1965	19.545	18.291	7.009	8.723

Another indication of the degree of shortage is the number of classes which are still in excess of the prescribed standards of 40 pupils in primary schools and 30 in secondary schools. The following table shows recent progress as measured by this criterion :

Table 4

Oversize classes as a percentage of all classes as registered

Year \ Level	Primary	Secondary
1955	29.4	49.4
1960	16.0	53.5
1964	13.5	42.6
1965	12.4	39.8

This table may give an exaggerated impression of the shortage of teachers in secondary schools since, although all pupils are registered in classes for administrative purposes, the practice of teaching them in smaller groups is much more commonly found in secondary schools than primary schools. It should also be borne in mind that the standard of what is oversize differs between primary and secondary (see A(11) above).

(2) Future Prospects

Since the Ninth Report of the National Advisory Council for the Training and Supply of Teachers was published, new birth-rate projections have been worked out and an accelerated programme of teacher training authorised (see Chapter III). Up-to-date information on the wastage rates of serving teachers has also recently become available and the Department is in the process of recalculating the figures of expected demand and supply which appeared in the Ninth Report.

Until these calculations are complete, only the most tentative forecasts of supply prospects can be made. Standards will continue to improve in the primary schools although, in the early seventies, they will still be coping with children from the second post-war bulge in the birth-rate. These children will gradually move to the secondary schools, which will also be faced with the consequences of raising the leaving age (see below). This will check improving standards in the secondary schools, though progress towards current staffing targets will be quickly resumed.

The Central Advisory Council for Education (England) in their report, "Children and their Primary Schools" (1967) make a number of recommendations affecting staffing policy. The Council advocate improved staffing ratios for schools in socially deprived areas and a scheme for nursery education for children below the age of compulsory school attendance (now the term following their fifth birthday). The Council also recommend that, as a general rule, the maximum size of primary classes should be the same as that in the first two or three years of the secondary school. No decision has yet been taken on these recommendations which would affect the assessment of teacher demand in the seventies.

One policy decision affecting demand was taken some years ago : the age at which pupils leave school will be raised in 1970/71 from 15 to 16. This will increase the demand for secondary teachers by 20,000. The effect of this sudden increase may not in practice

be confined to the secondary schools since a tendency to transfer some primary teachers to the secondary sector is possible. The Ninth Report of the National Advisory Council for the Training and Supply of Teachers put this transfer at 10,000 teachers, not as a recommendation but as an indication of what might happen. As yet the Department has made no judgment on what degree of transfer is likely to take place.

The plans for re-organising secondary education mentioned in Chapter I, are not expected to increase the overall demand for teachers. Within the secondary sector, however, the demand for certain categories of specialist teachers may be increased and, where re-organisation leads to the abandonment locally of the present lines of division between the primary and secondary sectors, new problems of supply may be created.

B. Non-maintained Schools

The following tables may be compared with the staffing ratios for maintained schools given in table 1.

Table 5

Pupil teacher ratios in independent schools
recognised as efficient

Level Year	Primary	Secondary	Primary and secondary (1)
1955	12.6	11.9	14.4
1960	12.5	12.0	14.5
1964	12.4(14.4)	11.3(12.3)	14.0(14.2)
1965	12.6(14.4)	11.3(11.7)	13.8(13.4)

(1) This column is not the total of the two previous columns but relates to schools with both primary and secondary departments.

Note : The figures in brackets are those of independent schools not recognised as efficient by the Secretary of State for years which are available.

Table 6

Pupil teacher ratios in direct grant grammar schools

1955	18.1		
1960	18.0		
1964	17.1	(Lower 21.2	Upper 16.6)
1965	16.9	(Lower 21.2	Upper 16.3)

One immediate conclusion is that staffing ratios are much more generous in non-maintained schools and indeed this is probably the main attraction of non-State education. It should however be borne in mind that a large number of independent schools take boarding pupils who require a higher staffing ratio than day pupils, they can restrict the number of pupils admitted to match the teachers available, and the proportion of unqualified teachers in independent schools, though not certainly established, is believed to be a good deal higher than in direct grant and maintained schools.

The Public Schools Commission (see Chapter I) is expected to examine the staffing of independent schools as part of its work.

C. Further Education

Earlier Reports which deal with the supply and demand for teachers in further education were the Supply and Training of Teachers for Technical Colleges (1957) and Teachers for Further Education (1961). There has been a considerable expansion of further education since the war and an increasing demand for teachers. As there is no professional teacher training requirement for teachers in further education it is not possible to relate supply to the capacity of the teacher training system as can be done in the case of school teachers. The pool of potential teachers for further education is, in fact, mainly the body of men and women between the ages of 25 and say 44 who have an appropriate qualification, vocational or otherwise, and are in industrial and commercial employment. It is not possible to determine how many of these will transfer to teaching as this depends on a number of factors of a social, economic and personal nature. Nevertheless, the supply of teachers has been generally sufficient to meet the demands of the expanding further education system although shortages sometimes occur in certain specialised fields. Buoyancy of supply is indicated by the fact that the targets set in the two reports mentioned above were exceeded and that the ratio of full-time equivalent teachers to full-time equivalent students has improved considerably over recent years.

The further education system owes much to the work done by part-time teachers. These are frequently people employed in industry and commerce, sometimes in very senior positions, who are appointed by colleges of further education to impart their technical expertise to the colleges' students. Some part-time teachers teach during the day but for the most part they are concerned with evening classes. They are normally employed from year to year and colleges can engage them and dispense with their services with very little formality. Their salaries are determined locally, usually on an hourly basis.

A little over 20 per cent of all the work in colleges of further education is done by part-time teachers. There were about 64,000 of them in the colleges (excluding evening institutes) in March 1965 compared with about 34,000 full-time teachers.

The ratio of full-time equivalent staff to full-time equivalent students for all staff and students in grant-aided colleges of further education was calculated in 1964 to be 1:9.3; this assumed that 70 per cent of all work was done by full-time teachers; the number of full-time equivalent students was determined by applying conversion factors of one-fourth and one-tenth respectively to the numbers of part-time day and evening only students. The staffing ratio for the younger students taking non-advanced courses who come within the scope of this study cannot be separately determined but is clearly lower than that for older students and is probably of the order of 1 : 12. Recent information, relating to the 1964/65 academic year, suggests that 75 per cent of all work is done by full-time teachers. Calculations based on this percentage indicate somewhat less generous staffing ratios (currently 1:9.9) than those previously calculated. Even so, there is no doubt that

staffing ratios have improved over recent years and it is reasonable to assume that the ratio appropriate to younger students with the field of this study has improved also.

Table 7

Ratio of full-time equivalent staff to full-time equivalent students

Academic Year	Overall Ratio of Full-time (1) Teachers to Full-time Equivalent Students	Overall Ratio of Full-time (1) Equivalent Teachers to Full-time Equivalent Students
1956-57	1:18.2	not available
1960-61	1:14.8	1:9.8
1963-64	1:13.2	1:9.3

(1) This information is based on the calculations referred to in the first sentence of the above paragraph.

A Committee of the National Advisory Council on Education for Industry and Commerce is at present considering ways of making the most effective use of the resources available and expected to become available in technical and other colleges of further education. It remitted to a sub-committee the task of reviewing the existing requirements and procedures relating to size of classes with a view to the more effective use of teachers and accommodation and its report is supplied.

CHAPTER III

THE TRAINING AND RE-TRAINING OF TEACHERS

This chapter describes mainly the arrangements for training and re-training teachers for the maintained schools. There are occasional references to teachers in further education, for whom professional training is not obligatory. Teachers in non-maintained schools may or may not have undertaken a course of professional teacher training.

1. Area Training Organisations

The training institutions (see below) are grouped in twenty area training organisations, all but one of which are university bodies. The area training organisations (known as institutes or schools of education) are representative of the university, training institutions, local education authorities and teachers in the area; they approve syllabuses, conduct examinations and are generally concerned to integrate the facilities in their area for training teachers. They are also responsible for recommending students in the institutions to the Secretary of State for the status of qualified teacher.

2. The Training Institutions

The various kinds of training institutions are as follows :

- (a) Colleges of Education : There are over 160 colleges of education, about two-thirds of which are maintained by local education authorities, and the remainder, which are mostly associated with one or other of the religious denominations, by voluntary bodies. They vary in size from under 250 to over 1,500 students. Most of the colleges are "general colleges": their main purpose is to provide three-year courses for students who will later work either as general teachers in primary or secondary schools or as specialist teachers of certain subjects in secondary schools. Fourteen women's colleges specialise in the provision of three-year courses in either physical education or housecraft (home economics) for intending specialist teachers of those subjects in secondary schools. Some colleges also provide one-year courses of professional teacher training for those who already have advanced qualifications in certain subjects (such as handicrafts, housecraft and music).
- (b) Departments of Education in Technical Colleges : Three-year courses of initial training for intending teachers in primary and secondary schools are also provided in departments of education which opened in 1967 in five technical colleges, selected from those predominantly concerned with advanced work.
- (c) Colleges of Education (Technical) : There are four colleges of education (technical) providing one-year courses of teacher training for students with qualifications in technical subjects who intend to teach such subjects in further education establishments (technical colleges, etc.) or possibly, in secondary schools.

- (d) University Departments of Education : Most universities contain a Department of Education - there are 28 such departments in all - providing one-year courses of initial teacher training for holders of degrees. (Certain colleges of education also provide similar one-year courses for graduates).
- (e) Art Training Centres : There are thirteen art training centres providing a one-year course of initial teacher training for holders of certain advanced qualifications in art. Most of these centres are associated with colleges of art maintained by local education authorities; a few are maintained by universities. In the future it is hoped to secure a greater integration of art teacher training with that of other subject training through the association or assimilation of art training centres with other teacher training institutions.

A large proportion of the colleges of education are for both men and women; most of the others are for women only, but there are about half a dozen colleges for men. The Departments of Education in technical colleges, colleges of education (technical), university departments of education and art training centres all admit both men and women.

3. Length of Courses

For most teachers the training course now lasts three years and is concerned both with the student's own higher education and with his training for teaching (commonly referred to as "professional training"). In specially approved cases, by virtue of their previous education and experience, older students may be allowed to follow a shortened course of two years or, very exceptionally, one year instead of the usual three years. The course for graduates and holders of certain advanced qualifications normally lasts one year and is concerned only with professional training.

4. Scope of Courses

The courses are broadly conceived, but in the professional studies concentrate particular attention on children in the age range the students are being prepared to teach, e.g. infants (5-7 years), junior (7-11 years), secondary (over 11 years). But most courses offer training in teaching the borderline ages on one or other, and possibly both, sides of the main age range; and some courses are specially designed to span two age ranges, e.g. junior/secondary (8-13 years).

5. Academic Qualifications for Admission to Training

For admission to a one-year post-graduate course of teacher training in a university department of education or a college of education, a student must hold a university degree conferred in the British Isles, or its equivalent. For admission to the one-year courses in art training centres, a student must hold certain advanced qualifications in art; and for admission to courses in the colleges of education (technical), advanced qualifications in a technical subject. For admission to the three-year course in a college of education, students must have a least five passes at Ordinary level of the General Certificate of Education, or the equivalent; in practice a majority of entrants have qualifications substantially above the minimum - in recent years over 60 per cent have had at least one pass at Advanced level in the G.C.E. and nearly 40 per cent have had two or more passes at Advanced level, which is the minimum requirement for entry to university.

6. Grants for Students admitted to Training

Grants are available for students who are British subjects ordinarily resident in England and Wales and tuition is free to students in receipt of grant. The amount of the grant varies according to individual circumstances.

7. Qualification Awarded on Successful Completion of Course

A successful completion of a teacher training course leads to recognition as a qualified teacher, given by the Secretary of State on the recommendation of the Area Training Organisation, which may also award its own certificate or diploma. Four colleges in London offer combined courses lasting four years, instead of the normal three, comprising both study for a degree of London University and professional teacher training leading to qualified teacher status. The Government decided that wider opportunities should be provided for suitable college of education students to obtain a degree together with a professional teaching qualification by means of a four-year course. Discussions have been going on between universities and colleges on the form which such courses might take and all the universities, with an institute or school of education acting as area training organisation, have agreed to offer a B.Ed. degree for suitable students who have taken a four-year course. A few will make the first awards of B.Ed. in 1968, but this will happen more commonly in 1969. It is generally accepted that initially these arrangements will affect only a minority of college students.

8. Minimum Age of Entry

For three-year courses at colleges of education, the minimum age of entry is 18 years. For admission to a college of education (technical) the normal minimum age of entry is 24 years, but the Secretary of State may exceptionally allow admission below this age in individual cases. No minimum age is prescribed for admission to courses in university departments of education or art training centres, but since students must have obtained a university degree in the one case, or advanced qualifications in art in the other, before they are admitted, the normal minimum age of entry is about 21 years.

9. Student Numbers

The following details of student numbers indicate how the total is distributed among the various types of training institutions mentioned in the preceding paragraphs.

Table 8

Teacher training students, academic year 1966-1967

	Entrants to initial training courses	Total student numbers
- Colleges of education (mainly for three-year courses)	34,000 1,000	84,000 1,400
- Colleges of education (technical)	3,900	5,000
- University departments of education	540	600
- Art training centres		

Note : The five departments of education in technical colleges did not take their first students until the academic year 1967-1968.

10. Application for training

The selection of students rests with the training institutions themselves. Recruitment is on a national basis in the sense that applicants are free to apply to the institutions of their choice without regard to regional considerations (all but a few of the training institutions are mainly residential although they have increasing numbers of day students and students in lodgings). The colleges of education, in selecting their students, take into account not only examination results and academic record, but also general intellectual ability, personality, interests and suitability for teaching. There are "Clearing House" arrangements to prevent applications from being sent simultaneously to a number of colleges and to ensure that, so far as possible, the places available go to the most suitable candidates (see Annex to this chapter).

In the early and middle 1950's, the training colleges (as the colleges of education were then called) had difficulty in filling all their places, but since then the number of candidates has more than kept pace with the increasing number of places available. The table below shows the proportion of applicants admitted over the last four years.

Table 9

Recruitment to Colleges of Education 1963-64 - 1966-67
(excluding post-graduate students)

	1963-64	1964-65	1965-66	1966-67
1. Total applications	31,600	35,600	43,500	47,400
2. Less unqualified applicants	1,400	1,200	1,500	1,500
3. Numbers eligible for admission	30,200	34,400	42,000	45,900
4. Withdrawals	6,400	7,800	9,600	10,000
5. Qualified applicants less withdrawals	23,800	26,600	32,400	35,900
6. Accepted for admission	21,000	24,100	29,300	33,400
7. Unplaced candidates	2,800	2,500	3,100	2,500
Classification of unplaced candidates :				
Acceptable	300	250	200	150
Near-acceptable	600	750	800	600
Unacceptable	1,900	1,500	2,100	1,750
	2,800	2,500	3,100	2,500

For other types of training institutions, the demand for and supply of places have been broadly in balance.

11. Expansion Plans

As Table 9 shows, expansion of the colleges of education in recent years has broadly kept pace with the increasing numbers of suitable applicants seeking admission to training since most of those who do not gain admission are "borderline" or unacceptable candidates.

To accommodate the increasing numbers of students, there has already been a massive expansion of the colleges. In 1957-1958 they had some 28,000 students with an annual intake of rather less than 14,000. In 1960 the normal length of the training course for non-graduates was increased from two to three years and by 1964-1965 the colleges' total student population was 61,000 with an intake of 24,000 new students. In 1966-1967 they admitted over 33,000 non-graduate students and their total numbers were over 84,000. Plans already in train will raise the colleges' student numbers to some 100,000 by the end of the decade and the Government has announced a target of 111,000 teacher training places in England and Wales (outside the universities) by 1973. This further big expansion is intended not only to help meet the rising demand for teachers, but also to help meet the need to provide increased opportunities for the growing numbers of qualified school-leavers seeking a higher education.

12. Increased Productivity in Colleges of Education

In July 1965, the Secretary of State asked the colleges of education to see what further they could do to increase their productivity, either through one or other of a variety of organisational changes in the training course which were suggested or by some other means of their own devising. The target set was an increase of 20 per cent in the national intake under previous plans, implying the raising of the annual intake to about 35,000 students by 1968-1969. It is now evident that this target will be reached and possibly surpassed. About 50 colleges, nearly one-third of the total, are planning changes in the organisation of the training course, mostly by "box and cox" arrangements under which there is always some section of the college community (for example, a whole year-group or half a year-group) out of college, usually on teaching practice. Other colleges are planning to make their contribution to the target by a still more intensive use of their teaching facilities, mainly by extending the working day or the working week.

13. The Training System and the Needs of the Schools

The training system is adapted from time to time to meet the changing needs of the schools. There have been two significant modifications in recent years. Firstly, in 1960 steps were taken to adjust the proportions of students training for the various age-ranges in such a way as to bias the training system heavily towards the primary schools, whose needs were seen to be greater than those of the secondary schools. Secondly, since 1964 an aim of policy has been to increase the proportion of men students admitted to training (hitherto 28-29 per cent), since men teachers may be expected to contribute more total service than women. In the event, however, it has not so far proved possible, in a period of rapidly expanding college intakes, to increase the proportion of men in the total.

14. Day Training Facilities

The number of older men and women embarking on training has grown remarkably in recent years, and the students aged 25 and over account for nearly 18 per cent of the total entry to the colleges of education. This is an invaluable source of recruitment for the schools both because these students bring with them a welcome maturity and because they can be relied upon to give a long period of uninterrupted service. Because of family ties, however, mature students cannot easily leave home to take a residential training course and it is important that there should be day training facilities widely available for them.

Many of the older students are accommodated in the general residential colleges, all of which take some students. These colleges afford a wide geographical coverage; but special day training facilities are increasingly being provided to cater for the particular needs of older students. There are sixteen separate day colleges of education in areas with

heavy concentrations of population; and college of education "outposts" are being set at some distance from the parent colleges for older men and women who do not live within daily travelling distance of any existing training facilities. There are already about two dozen such outposts and more are expected to open in 1968.

15. Part-time Training

Arrangements were initiated in 1966 for a limited number of experimental courses of teacher training involving part-time study to be run by selected colleges of education in three areas (London, Manchester and the West Riding of Yorkshire). Eight experimental courses are now running or planned. They are intended to meet the needs of older people who are anxious to train for teaching but are not in a position to embark on a full-time course. They generally extend over four years and most of them involve either part-time attendance during the day-time, usually during the middle part of the day and not necessarily on all days of the week, or evening (and perhaps some Saturday) attendance for three years with a fourth year full-time.

16. In-Service Training

In recent years the Department has set increasingly large store by the in-service courses by which teachers are enabled to keep abreast of new advances of knowledge in their subject and in the techniques of teaching. Short courses organised on a local or regional basis must continue to be the main stay of the country's in-service training effort. The important work on curriculum which has been sponsored by the Schools Council and such bodies as the Nuffield Foundation (see Chapter VI) has further emphasised the need for local and regional courses in which teachers can become familiar with new approaches to their subjects and new materials. Recently the Schools Council, in consultation with the Department, has initiated discussions on the establishment of local and regional centres for these purposes and for the general promotion of in-service training. Behind this local and regional effort stand the national programmes of courses sponsored directly by the Department; on the one hand, the short courses which have increasingly the purpose of bringing together groups of experienced teachers who may take a leading part in local courses, and on the other, the altogether more substantial one-term and one-year courses.

In the past year some 6,000 teachers have attended 110 courses in the Department's programme. There are currently nearly 900 teachers taking one-year full-time advanced courses, some of which lead to higher degrees, and over 500 teachers taking one-year courses in the teaching of handicapped children. Teachers who successfully complete these one-year courses, or those who take equivalent part-time advanced courses - and there are currently over 2,000 teachers doing so - now receive a salary addition. In addition there are now some 500 teachers taking one-year courses to supplement their basic two-year courses of initial training.

In future years it is expected that the number of teachers taking advanced courses, either full-time or part-time, will continue to increase substantially.

In March 1966 the Department issued a Circular (7/66) to encourage further training for teachers in further education on similar lines to the arrangements for further training for teachers in schools set out in the Circular of May, 1964. The new Circular aims to stimulate the provision by a variety of institutions of both short and longer term courses designed either for teachers in further education alone, or jointly for teachers and representatives of industry to acquaint them with new subjects and fresh approaches to material as well as new teaching methods. Some courses arranged by the Department will be specially designed to help in the leadership of local courses and conferences.

Annex to Chapter III

A. The Central Register and Clearing House

All non-graduate candidates for admission to the colleges and departments of education register with the Central Register and Clearing House; this ensures that if a candidate is not accepted by the college of his first choice, his application will be passed on to other colleges with suitable vacancies, while at the same time preventing multiple applications (i.e. simultaneous application to more than one college).

Candidates begin by naming two colleges as their first and second choices, and a "pool" of up to four colleges as their third choice. So far as possible (i.e. provided that the second and third choice colleges are not themselves already filled by "first choice" applicants), the Central Register and Clearing House observes the candidate's order of preference in passing on his application from college to college. If he is still unplaced after being considered by all the colleges on his preference list, his application is passed on by the Clearing House to other colleges which have suitable vacancies.

Recruitment to the colleges of education begins in the autumn about a year before the start of the course and continues until the following summer (mid-July), when it is suspended. Further vacancies occur in August following the withdrawal of selected candidates, in particular those who have gained admission to universities on the strength of the Advanced level G.C.E. results published in August, and in September the Clearing House conducts a special operation among the candidates still unplaced in order to fill these late vacancies.

The Central Register and Clearing House is an independent body, financed by a registration fee of 25s. Od. charged to all applicants. The measure of its success may be judged from the figures given in Table 9.

B. Non-compulsory training

Graduate teacher Training Registry

Applicants for initial post graduate teacher training courses apply according to the regulations of the Graduate Teacher Training Registry scheme. Applications may be made after 1st September of the year preceding the date of entry to the course and the majority of applications are made during October.

Late applicants may be able to obtain places at any stage during the year provided they are willing to go to departments or colleges where there are suitable vacancies.

Applicants select not more than two choices to which they apply directly. If they are not offered a place by either of the first two choices, the G.T.T.R. will continue to pass on one of their two applications for consideration by other departments and colleges with vacancies, if candidates wish this to be done.

Art training centres and colleges of education (technical)

There is a similar clearing house scheme for dealing with applications for admission to art teacher training centres. The small number of the colleges of education (technical) makes a separate clearing house scheme unnecessary in their case.

CHAPTER IV

RECRUITMENT POLICIES AND THE QUOTA

It will be evident from Chapter II, section B, that the supply of teachers in non-maintained schools is a matter for individual proprietors and that establishments of further education have never required recruitment policies on a national scale. The recruitment policies described in this chapter, therefore, relate only to teachers in maintained schools and the quota system is similarly confined.

A. Recruitment Policies

Teacher recruitment policy in England and Wales is inevitably influenced by the fact already noted in Chapter II, that there have not been enough teachers available at any time to achieve the staffing standards laid down for the maintained schools shortly after the war (i.e. classes of not more than 30 secondary or 40 primary pupils). Policy has thus been directed towards reducing and eventually eliminating a persistent gap between supply and demand where the demand for teachers is measured in these terms.

The unexpectedly high number of births in 1957 was the first evidence of what proved to be a significant and persistent trend towards earlier marriage and earlier parenthood, which had the effect not only of substantially increasing the school population but also of severely limiting the growth of the teacher force through the heavy loss of young women teachers to marriage and motherhood.

In recent years, then, teacher recruitment policy has been formulated against the background of a major social factor which has been simultaneously increasing the demand for teachers and hampering their supply. It was clearly necessary to secure the maximum possible recruitment from the two main sources of new teachers - trained non-graduate students from the colleges of education and the output of graduates from the universities. It was quickly appreciated, moreover, that a third source of supply was available in the pool of married women teachers who had left service but might be persuaded to return either full-time or part-time.

(1) Training non-graduate teachers

Although in the early and middle 1950's there was some difficulty in filling all the training places then available, this has not been the case in recent years (see Chapter III, sections (10) and (11)). For this reason, there has been little need for special recruitment efforts, in the field of publicity and persuasion, to stimulate applications from suitable candidates. Recruitment literature addressed to school leavers, "Train to Teach", and a booklet designed to attract older applicants "Turn to Teaching" are produced by the Department and widely distributed, mainly through the local education authorities.

Whilst more sustained efforts to recruit candidates for training may be needed in the immediate future - the reasons given are discussed in Chapter VI - the principal recruitment effort in the past has been to expand the training system as rapidly as possible and

to adapt it to the changing needs of the schools. These matters were discussed in Chapter III, sections (11) and (13).

(2) Graduate teachers

At present, graduates of British universities are accepted as qualified teachers on the strength of their degrees alone, although it is official policy to encourage them, and eventually to require them, to take a one-year post-graduate course of teaching training. Graduates are thus potential recruits to teaching, either immediately on graduation, or after a period of only one year spent in professional training. The choice of careers open to graduates is wide, however, and the career of teaching, although chosen by more graduates than any other single occupation, naturally has to compete with many rival claims on graduates' services. In these circumstances, an aim of policy has been to make accurate information about a teaching career readily available to potential recruits. For some years a descriptive booklet produced by the Department has been widely distributed among university students.

Information was lacking, however, about the factors which influenced undergraduates in their choice of a career, and about their attitudes to careers in general and to teaching in particular. To obtain this information, a survey was therefore conducted of final year students in all English and Welsh universities, the results of which became available in 1965. The survey showed that teaching was well suited to the career aspirations of many women students, and gave grounds for believing that the proportion of women graduates entering teaching would continue to be high. It also showed, however, that most uncommitted men students - the group it was necessary to attract if total recruitment was to be substantially increased - tended to reject teaching because, in their view, it failed to satisfy three criteria to which they attach particular importance in choosing a career - pay, opportunities for advancement, and the intrinsic interest of the job. It was clear, however that students' belief that teaching offered poor pay and prospects was based on a gross under-estimation of graduate teachers' actual earnings and of their real chances of attaining a position of seniority quite early in their careers. Moreover, it seemed likely that students, in judging that teaching lacked interest, were too little aware of the growing variety of responsibilities and opportunities which a rapidly developing education service would offer to teachers in the future.

Recruitment policy was therefore directed towards correcting some of the mis-apprehensions about teaching which appeared to be widespread among potential recruits. The Department's recruitment booklet "Careers in Education for Graduates" was revised in the light of the survey. Press advertising, which had been started before the results of the survey became available, was renewed on a larger scale from October 1965. The advertisements were designed to draw attention to the true facts about graduate teachers' salaries and prospects, and to emphasise the growing importance of education to the community at large. Through contact with university appointments secretaries efforts are being made to increase the opportunities for students to meet young serving graduate teachers and to see and hear for themselves some of the interesting developments now taking place in the schools, especially in schools of kinds with which they themselves are not already familiar.

(3) The return of married women teachers and the development of part-time teaching

In 1958, when the rise in the birthrate and the accompanying increase in the wastage of young women teachers first became apparent, the Nuffield Foundation, with the active support of the Department, sponsored a survey of women teachers to throw light on their

reasons for leaving service, the likelihood of their return and the factors which might stimulate that return. The survey was conducted by Professor R.K. Kelsall of Sheffield University, whose report "Women and Teaching" was published in autumn of 1963.

From the recruitment point of view, the most important conclusions to be drawn from the survey were that a high proportion (at that time, rather more than half) of the teachers out of service intended to return; and that the measures which would be most likely, in the view of the teachers taking part in the survey, to increase the rate of return were an expansion of opportunities for part-time service and the provision of more nursery facilities for the children of intending returners.

National publicity to attract married women teachers back into the schools was instituted in 1961, as part of the preparations for the so-called "year of intermission" (1962-1963), the year in which the output of trained teachers was substantially reduced as a consequence of extending the normal training course from two to three years. Following the Kelsall Report, publicity was resumed in 1964, and in each subsequent year. Since the end of 1962, some limited use has also been made of television to publicise the need for married women teachers, and appeals have been made from time to time on the radio. Local education authorities have co-operated vigorously in the national campaigns.

In 1961, a total of 4,600 married women teachers returned to service, full-time or part-time; the number rose to 5,500 in each of the next two years, to 6,400 in 1964, 7,200 in 1965 and 7,300 in 1966.

Since 1964, publicity to attract married women teachers has placed particular emphasis on opportunities to teach part-time and efforts have been made to persuade authorities and schools to widen the scope for part-time employment. Enquiries were made into the policies and practices of a number of authorities who were already employing part-time teachers on a substantial scale, and the results of those enquiries were embodied in Report on Education No. 21, which was issued in May, 1965 and widely distributed. Simultaneously, a Circular (6/65) on part-time teaching in schools was issued to all authorities. The Circular asked all authorities to adopt as their minimum aim the employment of part-time teachers on a scale equivalent to 5 per cent of their total teaching strength; it urged them to review the conditions of service offered to part-time teachers and bring them as closely as possible into line with those for full-time staff; and it called for a fresh initiative in the provision of refresher courses for teachers returning to service, whether full-time or part-time.

In the five years since the campaign to attract married women teachers was instituted, the number of part-time teachers in service, about four-fifths of whom are married women, has more than doubled, to the present figure of over 41,000. Their use on a substantial scale, at one time confined to a number of the more enterprising authorities, is becoming widespread. Enquiries among authorities since the issue of Circular 6/65 show that a great deal of progress has been made in assimilating part-time teachers' conditions of service, in such matters as tenure and sick leave, more closely to those for their full-time colleagues. From 1st May, 1968, the pay of part-time teachers will be nationally regulated and in proportion to full-time salaries. The service of certain part-time teachers will be pensionable on an optional basis from 1st December, 1967, and relief teachers may join the scheme on 1st March, 1968.

The persistent shortage of teachers, especially of teachers for very young children has prevented any major expansion of nursery education. Local education authorities have been encouraged, however, to set up new nursery facilities where these would enable married women teachers to return to service and hence result in a net gain to the teacher force. No decision has been reached on the recommendations of the Central Advisory Council

(England) in their report, "Children and their Primary Schools", for the extension of the nursery provision.

Local education authorities are asked to do everything they can, through the provision of refresher courses or by other less formal means, to give returning teachers the help and encouragement they need. Recent enquiries have shown that a wide variety of arrangements has been devised to suit the varying needs of the teachers concerned and it is an aim of policy to promote further development on these lines. Consideration is also being given to the possibility of stimulating the formulation of local associations of former teachers, including those with no immediate prospect of returning to service, so that they may be kept in touch with their profession during their enforced absence from teaching, and given the maximum encouragement to return as soon as they are free to do so.

B. The Quota

It will be recalled from Chapter I that the recruitment and employment of teachers is the function of the local education authority. The quota arrangements limit the authorities' freedom in this field by rationing the number of teachers of certain kinds whom each authority may employ. The present arrangements were introduced in 1956. Their introduction followed a short period during which authorities had been free to employ as many teachers as they could recruit and in certain areas serious shortages had been threatened. Before, this so-called "dash for freedom" control of employment had been confined to women teachers.

The theory behind the present quota scheme is that a limitation on the employment of teachers in areas where recruitment is easy, or relatively easy, will help areas where recruitment is difficult to secure a fairer share of the teachers available. A guiding principal in operating the scheme has been that improved distribution of teachers should be achieved, not by sudden and radical re-distribution of the existing teacher force, but by arranging that the benefit of improving supply should be channelled to the shortage areas. In this way they would gradually be brought up to the standards of the best. In the first year of the quota, and again in 1963, when the extension of the training course meant that few new teachers left the colleges, exceptional arrangements were necessary. Nevertheless, broadly speaking the effect of the quota over the last ten years has been that the most attractive areas have marked time while the shortage areas have improved their standards by considerably more than the average amount. The situation has now been reached when, apart from a small number of authorities which had exceptionally high standards when the scheme started, the quotas represent a similar staffing standard for all authorities.

Similar staffing standards do not necessarily mean similar pupil teacher ratios. Staffing ratios vary considerably and depend on several factors. Rural areas, with large numbers of small uneconomic schools, require more teachers than compact urban areas. Other factors which affect the ratio needed to achieve a given standard which are taken into account in quota calculations, are the ages of the pupils, the provision of classes for pupils needing special educational treatment, and, in Wales, the extra teachers needed for bilingualism. Special allocations are made to the quotas of authorities who have considerable concentrations of immigrants who know little or no English.

In broad terms the quota scheme covers all full-time qualified teachers. In other words, unqualified teachers and part-time teachers, whether qualified or not, are excluded from it completely. Married women returning to full-time teaching after a break in service (and certain married women graduates entering full-time teaching for the first time)

do not count against the quota for the first two years after their return (or entry). The exclusion, or partial exclusion of these four categories from the quota arrangements is an attempt to reconcile conflicting interests. On the one hand, the teaching force must be distributed equitably, but on the other hand, certain teachers are immobile, or not firmly committed to teaching as a career, and would not teach at all unless they could serve near their homes. It does mean, however, that authorities able and willing to recruit these "off-quota" teachers can improve their staffing standards well beyond what is implied by their quotas.

The Department announces the authorities' quotas a year in advance to give them time to adjust the scale of their recruitment and take into account impending retirements and resignations. No stipulation is made as to how the teachers should be deployed among the authorities' schools. The quota system is a voluntary arrangement in that it does not have the force of law. Nevertheless, as all authorities have agreed to accept the system they are expected not to exceed the allocation they are given and those few which do are asked to take steps to remedy the situation.

CHAPTER V

CAREER STRUCTURE OF TEACHING AND CONDITIONS OF WORK

In this Chapter there are few references to teachers in non-maintained schools, since they obtain promotion or enhanced salaries by entering into successive agreements with their employers at different times during their career. In a sense this is true also of other teachers but it is possible to describe the career structure of teaching in the maintained sector in more precise terms.

1. Probation

All full-time qualified teachers newly entering service in a maintained school are normally required to undergo one year's probation. This may be shortened or even waived by the Secretary of State in exceptional circumstances. The probationary period may also be extended on the recommendation of a local education authority coupled with the advice of H.M. Inspector.

In further education, whether or not a newly appointed teacher is required to undergo a period of probation depends on his employing local education authority, as does the length of probationary service.

2. Promotion

In maintained schools, promotion to graded posts (i.e. posts of special responsibility), headships of department, deputy and headships (1) comes about when a teacher successfully applies for such posts which are normally advertised by the local education authorities. There is nothing to prevent a suitable teacher moving from a primary school to a secondary school (though this would not necessarily mean promotion) or vice versa. Movement between schools, colleges of education and colleges of further education also occurs.

The arrangements for promotion are similar in establishments of further education although the names of posts are different (see Section (b) below). Teachers concerned with students within the scope of this study will normally be assistant lecturers, or occasionally lecturers, responsible to a head of department and through him to the college vice-principal and principal). When making appointments to teaching posts in colleges of further education, local education authorities have regard in the main to a candidate's qualifications and experience in relation to the needs of the post. Other things being equal, they would normally prefer a professionally trained teacher to an untrained one. A teacher may be appointed above the basic grade and, within the grade, above the minimum.

(1) It is an unusual feature of the system that the names of the grades, other than head-teacher, come from the salary machinery (see section 3) and not from the regulations governing school staffing.

3. Salaries

The salary scales of full-time teachers in maintained schools and further education are determined nationally by negotiation between representatives of the teachers themselves and of their employers through bodies known as the Burnham Committees. These each consist of a Teachers' Panel representing the teachers' associations and a Management Panel representing the local education authorities and also the Secretary of State. The Committees' most recent reports are those for 1967 and the information given below is taken from them. The 1967 salary scales will operate until 31st March 1969.

(a) Maintained Schools

The basic scale for a Qualified Assistant Teacher is £800 rising, over 14 years to £1,500 per annum by automatic annual increments. Graduates (with first degree below second-class honours) and others holding certain professional or other qualifications which have been accepted by the Burnham Committee as equivalent for salary purposes to a University degree receive an addition of £100 at all points on the salary scale, and graduates with a first or second-class honours degree, or a higher degree, of a British university (and Commonwealth equivalents) receive instead £220 at all points of the scale. Graduate Assistant teachers who have been trained as teachers, and teachers (both graduate and non-graduate) who take a "Special Course of Advanced Study", receive a £50 per annum addition to salary. This £50 is also paid for certain qualifications in the teaching of handicapped children and Qualified Assistant Teachers serving in special schools for handicapped children receive an additional £130 per annum. Responsibility allowances for Qualified Assistant Teachers fall into three categories: "graded posts" at £125, £210 or £315; "heads of departments" at £210, £315, £445, £570 and £700; "deputy heads" ranging from £145 to £1,055, depending on the Group of the School.

There are separate scales of salaries for Qualified Head Teachers ranging at their maxima from £1,710 to £4,110. There are 13 separate scales for which schools are classified in Groups, dependent on the number and ages of the pupils. Additions are not made to head-teachers' salaries for degrees or other qualifications.

The proportion of the total salary bill devoted to differential payments is about 25 per cent. Figures for 31st March 1963 showed that 50 per cent of men teachers and 25 per cent of women were receiving responsibility allowances after only seven years of service, and that amongst teachers aged 50 or more 82 per cent of the men and 55 per cent of the women had such allowances.

Salary increases normally depend on progression up the appropriate scale or on promotion to a post involving responsibility allowance. In certain cases a teacher can improve his salary by adding to his qualifications; for example, when he completes a course of advance study attracting the £50 allowance or when a non-graduate obtains a degree. But teachers who specialise in a particular subject do not receive any extra payment for teaching that subject.

(b) Further education

(1) Assistant lecturers : Lecturers Grade I

The scales for the former correspond with those for qualified Assistant Teachers in primary and secondary education. The latter is a higher grade and is paid £235 more at all points. Additions are payable, as in primary and secondary education, to both grades for degrees (£100 at all points), good honours degrees (£220) and advanced professional training (£50). Lecturers Grade I may also receive an allowance of £175 for supervisory duties, etc.

(ii) Lecturers Grade II : Senior Lecturers : Principal Lecturers : Heads of Departments : Full-time Vice Principals : Principals

These grades are paid on prescribed scales which do not specifically take account of qualifications or training. An allowance not exceeding £500 is payable to a Head of Department who also undertakes the duties of Vice-Principal. An Allowance not exceeding £300 is payable to a Head of Department who acts as Head of Faculty.

(iii) Readers

This is a new grade introduced in 1965, the salary scale for which is determined locally although it must be within a range prescribed in the Burnham report. The establishment of a post of Reader in a college is subject to the Secretary of State's approval.

The subject taught has no bearing on salary which depends entirely on the teacher's grade and his position on the appropriate scale.

(c) Non-maintained schools

The Burnham agreements do not extend to teachers in non-maintained schools where the schools themselves determine what salaries are paid. Burnham scales are, however, often used as a guide.

4. Pensions

The pension arrangement for teachers both on retirement and on breakdown of health during service, are broadly similar to those of other public servants and are described in the leaflet "Form 199 Pen". These arrangements apply to teachers in maintained schools and in maintained and direct-grant further education establishments. Teachers in non-maintained schools and colleges can be admitted to the government's superannuation scheme on the same terms as other teachers, provided the establishment in which they teach has agreed to participate. Independent schools and colleges may do this if they have been recognised as efficient by the Secretary of State and pay the necessary contributions.

Strictly speaking there is no such thing as a legal retirement age for teachers in England and Wales. The Teachers' Superannuation Regulations simply provide that pensions on the ground of age may be paid provided that the teacher has ceased to be employed, and has completed one of a number of alternative qualifying periods and has reached the age of 60 years. So far as the Teachers Superannuation Regulations are concerned service may continue beyond that age, but after the teacher has completed 45 years of service reckonable for pension, which cannot be done before the age of 65, or reached the age of 70, the service ceases to count for pension purposes, and so a teacher's incentive to continue in service is reduced.

The reason why the teachers' superannuation scheme does not include a retirement age, as many superannuation schemes do, is that it is administered by the central government, whereas a retirement is a matter for teachers' employers - usually the local education authorities. Local education authorities' terms of agreement usually provide for automatic retirement at the end of the school term in which the teacher attains his sixty-fifth birthday, and for the extension of service by mutual agreement beyond the end of that term. Many teachers are in fact employed beyond the age of 65, especially in areas of shortage.

The median ages of retirements of teachers on age pension during the last few years are as follows :

Table 10

Median ages of retirements of teachers on age pension

Year	Sex	
	Men	Women
1961/62	62.5	60.9
1962/63	63.0	60.9
1963/64	63.0	61.1
1964/65	62.6	60.9

5. Conditions of Service

Conditions of service in non-maintained schools are determined by the proprietors so that again the information given in this section relates mainly to teachers in the main-tained sectors except that direct-grant schools can be expected to follow the recommend-ations mentioned below.

(a) Maintained Schools

By virtue of Section 17 Education Act 1944, all schools are required to have either articles of government or rules of management. These, in broad terms, lay down the condi-tions under which teachers employed in those schools shall work. For practical purposes, however, it is safe to assume a considerable conformity between teachers' conditions of service and the recommendations contained in three documents - "Appointment of Teachers : Model Agreements", "Conditions of Tenure of Teachers", and "Teachers' Sick Pay Regulations". It will be noted that these recommendations are based on agreement between the teachers' associations and the employers, and that the Department has not laid them down. Schedule II of the Schools Regulations 1959 impose certain conditions on the employment of teachers and the teachers have not been excluded from the Redundancy Payments Act 1965.

The recommendations relate to full-time teachers. The Department is however encour-aging authorities to apply the same conditions of service, where appropriate, to part-time teachers in regular employment.

There is no legal requirement as to the number of teaching hours to be undertaken by full-time teachers. They are normally expected to be engaged in school activities during the whole time that the school is open, which is generally for seven hours a day, five days a week and forty weeks a year. Time for the preparation of lessons and marking exer-cises is included in the hours of work. Teachers who undertake extra-mural duties, such as the organisation of sports activities, do so voluntarily and without payment. It follows that the concept of over-time does not exist.

Teachers are able to attend a wide variety of courses; national short, one-year and one-term courses are sponsored by the Department. (See Chapter 3, section (16)). Teachers apply to their local education authority for permission to attend both national and local courses. The majority of courses are arranged locally. The Authority has complete discretion in deciding whether or not to grant permission.

(b) Further education

As in the case of school teachers, conditions of service in further education are a matter between the teacher and his employer. General guidance is given in a document entitled "Conditions of Service of Teachers in Establishments for Further Education", which is agreed between the associations representing the authorities and those representing the teachers.

Teachers in colleges of further education work a slightly longer day, which may include evening work, than their colleagues in schools. In most instances the college year is rather shorter but a few colleges now operate a much longer year which necessitates "staggering" arrangements so that staff may have reasonable vacations. Overtime may be payable for additional work is provided for in the teacher's contract of service.

Teachers in further education are able to attend courses in the same way as school teachers. Arrangements to encourage their secondment to both national and local courses were announced in Circular 7/66.

6. Discipline

Procedures normally followed by employers when teachers commit misconduct are set out in the recommendations mentioned above. In serious cases the Secretary of State can forbid, or limit, the employment of any teacher in the maintained sector on grounds of misconduct or grave professional default. His decision follows a careful enquiry during the course of which the teacher may present his case. There is no appeal against the Secretary of State's decision although a teacher may apply for reinstatement after a suitable interval. The Secretary of State's powers are given by regulation (for maintained schools by Schedule II, paragraph 5 of the Schools Regulations 1959 (as amended); similar powers are taken in other regulations, including the Direct Grant Schools regulations).

The Secretary of State's powers in relation to misconduct by teachers in independent schools are based on Sections 71 and 74 of the Education Act 1944. This procedure can result in an Order, made either by the Independent Schools Tribunal or the Secretary of State, disqualifying a proprietor from being the proprietor of any independent school, or a teacher from being a teacher in any school (i.e. independent or grant-aided or maintained). Reinstatement may follow on application in appropriate cases.

7. Conclusions : The Status of Teachers

Previous paragraphs will have given some idea of the status of teachers in isolation but it is difficult in a study of this kind to assess their position in society in relation to that of other professional people. In economic terms there are few real analogues for teachers in other professions in the public service for the purpose of comparing salary levels. Over the nine years 1954-1963 the level of teachers' salaries had risen by about 79 per cent and has been still further increased by the Arbitration Awards in 1965 and 1967. The available evidence suggests that this advance has considerably outpaced the general upward movement both in salaries and in wages. (See paragraphs 28-35 of the "Report of the Arbitral Body on Salaries of Teachers in Primary and Secondary Schools, England and Wales, 1965").

Status cannot be regarded entirely in economic terms. Other professions, such as medicine and law, are self-governing and particularly over the past six years there has been a movement amongst the teachers' associations to establish a General Teachers' Council, which would control entry to the profession and discipline. Serving teachers would form a majority on the Council and employment would be confined to teachers registered with the Council, from a date to be determined.

The establishment of such a Council would however require legislation, as powers now exercised by the Secretary of State would have to be transferred to it. The Secretary of State's view is that a time of acute teacher shortage is inopportune for such changes.

A more general opinion might be that a professional council on the model of those established for self-employed professions in the nineteenth century has little relevance to the standing of teachers in modern society, which will judge teachers much more by the kind of work they do and the manner in which they do it.

Ways of improving the professional image of teaching have been part of the scheme of the former Secretary of State's addresses to two recent annual conferences of the National Union of Teachers. In 1965 he observed that a feature of professional life was the devotion of certain inferior work to sub-ordinate staff and he hoped that ancillary help, both inside and outside the classroom, which is provided already in some places would be more generally developed in the future.

At the 1966 Conference, the then Secretary of State drew attention to the changing nature of the teacher's functions :

"We shall see the teacher more and more as a personnel manager, in charge of larger staffs of qualified teachers, calling on a growing number and variety of ancillary staff, and with access to an increasing range of associated skills in social welfare workers, youth employment officers, or psychologists. We shall see him or her as manager of the dawning revolution in the technology of education. No manager was needed for a hundred slates or a dozen French dictionaries. But they are needed for the educational tools of today and tomorrow: the growing libraries, television (perhaps closed circuit), tape recorders and language laboratories, programmed learning, microwave equipment, and the rest.

Moreover, by becoming examiners as well as teachers, as many of you are with the new C.S.E. and other examinations, the teacher is taking control of a total process instead of being satisfied with only part of it. The manager today is one who is professionally in control of the total situation, as a surgeon in the operating theatre, or an architect in directing and designing his buildings. It is this management function which I think teachers will have thrust upon them more and more, and which they must be prepared to shoulder, with the highly trained teacher more and more concentrating on his professional task, and the routine tasks carried out by human or mechanical assistants... These changes in techniques, enlarging the functions of the teacher must inevitably improve his professional status".

In 1966 the local education authorities' and teachers' associations carried out a survey of the present use of ancillary helpers in schools and talks are proceeding among representatives of these associations. The Central Advisory Council for Education (England) in its report "Children and their Primary Schools" published in 1967, advocated a scheme for the recruitment and training of "teachers' aids". No decision on this recommendation has yet been reached.

CHAPTER VI

THE DEMAND FOR TEACHERS IN RELATION TO THE POOL OF HIGHER EDUCATED MANPOWER AND THE IMPROVEMENT OF TEACHING METHODS

A. The Demand for Teachers in Relation to the Pool of Higher Educated Manpower

In an arresting passage in its Ninth Report (paragraph 20), the National Advisory Council on the Training and Supply of Teachers noted that to build up and sustain the teaching force it recommended would require about half the total annual output of the higher education system by the 'eighties'. It should be added at once that the calculations on which this comment was based took into account the demands for teachers in higher education which are outside the scope of this study. Nevertheless, the bulk of the teachers required will be in the maintained primary and secondary sector.

The demands of teaching cannot be assessed in isolation and studies are now being made of the technical and conceptual problems in budgeting for the country's needs of highly educated manpower.

In one particular field, where teaching competes with the requirements of industry and research, the Council for Scientific Policy has asked the Committee on Manpower Resources for Science and Technology for guidance and a Working Group under Professor Swann has been set up. It produced an Interim Report on Manpower Parameters for Scientific Growth in October 1966.

The continued growth and vitality of science and technology rests in the long term on the ability of a nation to finance these activities, and on sufficient numbers of individuals of high ability in the schools opting for a career in this field. Qualified manpower contributes to both aspects - to economic productivity and advance in industry, and in the schools by providing teachers of ability and vision.

Preliminary evidence, based mainly on the university returns of first employment of graduates, suggests that the present phase of rapid growth of institutions of higher education has inevitably meant the retention in the higher educational system of a proportion of its best graduates, with the dual effect that industry has found it harder to recruit individuals with the highest abilities, and that it has been difficult to maintain the proportion of school teachers with good academic qualifications. Such a situation could have significant implications for the future growth of basic science. Professor Swann's Group in its Interim Report has examined the data from the 1965 Manpower Survey in relation to evidence on first and on substantive employment of university graduates. The Report concludes that in recent years there has been a degree of imbalance between stated national demands, particularly those of industry and the schools, and the pattern of first employment which has shown a marked tendency on the part of graduates (particularly the more able) to seek employment involving research outside industry, for example in higher education or in further research abroad. The Report recommends that industry and the schools must take all possible steps to attract graduates of high quality and must match these steps by conditions of employment and prospects for advancement. Further attention should be

given to meeting these demands at least in part by re-deployment from other sectors, such as Government research establishments.

So far as arts graduates are concerned there are those who argue that university output will soon reach such a level that they will seek to enter the schools in increasing numbers out of sheer necessity. This argument perhaps takes insufficient account of the fact that the schools' demands for graduates are not unlimited, even in the secondary sector where most graduates are employed. (This is less true of graduates in science and mathematics, more of whom would unquestionably be employed if they would come forward).

The National Advisory Council for the Training and Supply of Teachers in paragraph 157 of the Ninth Report noted that there were already signs that the proportion of graduates entering the schools directly had not increased in recent times when the output of graduates had increased. The Council's cautious assessment of the number of graduates likely to enter the schools in the future has been supported by the evidence of recruitment figures since their Report was published. The position may change in the early seventies when secondary staffing is under pressure. But by the mid seventies when secondary staffing is under pressure. But by the mid-seventies the Council considered it possible (paragraph 165 of the Report) that opportunities in secondary schools for graduates may do no more than keep pace with the growth in university output although there might be more room for the expansion of graduate employment in primary schools.

Colleges of education (see Chapter III) may legitimately be considered along with universities and colleges of further education, as contributing to the pool of higher educated manpower. Indeed, for women in particular, the colleges of education supply an opportunity of higher education which would not otherwise exist and would have to be provided in an alternative form. But so far as teaching is concerned, the colleges of education have an advantage which other forms of higher education do not possess, namely a strong degree of commitment on the part of students to teaching as a career. Apart from a certain amount of inevitable in-course and end-of-course wastage, all who enter the colleges of education emerge as teachers for the schools.

The position in universities is quite different. In determining the amount of recurrent grants which the University Grants Committee makes to universities, the demand for graduate manpower by different sections of the community, including teaching, is taken into account. Since however the university courses which potential teachers follow are not vocational, it is impossible to budget precisely for the number of graduate teachers required.

The advantage which colleges of education have in this respect would be lessened if insufficient 18 year-olds with the required academic qualifications presented themselves for admission. As was noted in Chapters II and III this has never yet happened. Because of the fluctuations in the birth-rate, however, we are now at the start of a period when the number of 18 year-olds in the community will actually decline and the number with "A" level and "O" level qualifications needed to enter the colleges of education will be more or less static. This period coincides with a further expansion of teacher training places and with an increase in the number of university places which will draw off some who would otherwise have entered colleges of education. The Department is currently making a study of student numbers in the whole of higher education, both full-time and part-time.

B. The improvement of teaching methods

(1) The Schools Council

The Central body concerned with the improvement of teaching methods is the Schools Council for the Curriculum and Examinations, which was established in 1964. It took over the work of the Curriculum Study Group and the Secondary School Examinations Council. The objects of the Schools Council are to uphold and interpret the principle that each school should have the fullest possible measure of responsibility for its own work, with its own curriculum and teaching methods based on the needs of its own pupils and evolved by its own staff; and to seek, through co-operative study of common problems, to assist all who have individual or joint responsibilities for, or in connection with, the schools' curricula and examination to co-ordinate their actions in harmony with this principle.

In order to promote these objects, the Council keeps under review curricula, teaching methods and examinations in primary and secondary schools, including aspects of school organisation so far as they affect the curriculum, and draws attention to difficulties arising in these fields which appear to merit consideration by other appropriate authorities.

In 1965 the Council published three working papers, "Science for the Young School Leaver", "Raising the School Leaving Age" and "English", and initiated studies in secondary school mathematics, foreign languages, the humanities and engineering science. The Council also became joint sponsor with the Nuffield Foundation of their major curriculum development projects in science at all levels, junior mathematics and junior foreign language teaching.

The Council is responsible for the co-ordination of secondary school examinations and for a joint committee which considers the relationship between the Certificate of Secondary Education and the Ordinary level examinations for the General Certificate of Education. The Council publishes a number of Examination Bulletins.

(2) Innovations in the schools and colleges

Many teachers are innovators on their own account. Modern practice allows the individual teacher great freedom to experiment with syllabus and with class and school organisation and with teaching methods.

Teachers in schools collaborate with other agencies by testing and validating new syllabuses, methods of work and materials resulting from research and development projects - e.g. those of the Schools Council, the Nuffield Foundation or the Reading Research Unit of the London Institute of Education.

Teachers also collaborate in educational research e.g. in investigations mounted by the National Foundation for Educational Research which result in long-term changes in education theory and practice, e.g. in methods of selection for secondary education and in the organisation of secondary education itself.

Audio, visual and audio-visual aids are increasingly used in schools and also in colleges of further education. (A recent report, "Audio-visual Aids in Higher Scientific Education" may be of interest). These aids can make teaching more effective; enrich content; enliven presentation; clarify understanding and leave a sharper and more lasting impression of ideas the teacher and the children are discussing. They can give access to subjects and experiences which would otherwise be impossible, and bring pupils into contact with outstanding teachers.

Some teachers already take an active interest in these aids as members of the national organisation covered by the National Committee for Audio-visual Aids in Education, as

educational advisers on the subjects and the content of various audio-visual aids, e.g. films and film-strips. Others are actively involved in the planning of programmes put out on sound by the B.B.C and on television by the B.B.C. and the independent television companies. Many programmes make use of teachers, and teachers are involved in the feed back from the classroom to the programme planning committees. Teachers are also now experimenting in schools with the newer technological aids such as closed-circuit television, tape recorders, overhead projectors and language laboratories. Her Majesty's Inspectors are concerned to watch and to encourage all these developments in various ways - by discussion with teachers in schools and at conferences, by conducting short courses for teachers, by serving on panels of experts, by writing pamphlets to be published by the department of Education and Science.

The extent to which these new teaching aids are employed is determined by the local education authorities. Their employment is too limited and experimental to have any effect on the demand for teachers. The value of these aids so far has been to enable the teacher to make better use of the time available to him.

ANNEX I

METHODOLOGY OF FORECASTING THE DEMAND AND SUPPLY OF TEACHERS

The forecasts of the demand and supply of teachers which have been prepared for England and Wales have always been made for the county as a whole. It has been realised that the present staffing position and future prospects differ from one area to another and that the assessments of the national position will not necessarily hold good in a particular region or district. Also, no attempts have been made as yet within the total framework of supply and demand to assess the supply of, or demand for, teachers of individual subjects at different levels in various types of school or establishment.

The forecasting techniques used so far place great reliance upon basic statistical material and assumptions. There are many ways by which these techniques can be defined but they all depend upon the provision of necessary data. The present application of an Automatic Data Processing system to the Department's records and statistics will gradually enable a much wider range of information to be collected which will lead to an improvement in the forecasting techniques used.

Although the uncertainties of assumptions and the margins of error surrounding the calculations based upon them are emphasised, it has been the practice to present forecasts to the nearest thousand. The practical advantages of this course are that it enables the balance between supply and demand at different relative dates to be more easily compared and that it illustrates more clearly the effects of various policy developments upon the demand for teachers and of the measures recommended to improve their supply.

A. Assessing Demand

Estimates of the demand for teachers in schools rest on the assumption made about :

- (a) School population
- (b) Staffing Standards
- (c) The pattern of attendance at school.

The estimates of future school population are derived from known and estimated birth-rates. The estimated birthrates are prepared by the Government Actuary in association with the General Register Office. A number of assumptions have to be made, some demographic and some educational.

Demographic

- (a) The projection of trends in marriage rates at given ages.
- (b) The average size of a family, the time interval between children and the average age of women on starting their families.
- (c) The size of net migration.
- (d) The decline in death rates of children and young adults.

Educational

- (e) The proportion of children of statutory school age attending the sector of education being studied;
- (f) The pattern of school attendance and the age of transfer from primary to secondary schools;
- (g) The raising of the school leaving age at a future date;
- (h) The trend in the proportion of pupils staying on voluntarily at school beyond compulsory school age.

In maintained primary and secondary schools the regulations state that classes in primary schools and secondary schools should not exceed 40 and 30 pupils respectively, unless a shortage of teachers makes larger classes unavoidable. In order to relate demand exercises to the requirements of this regulation, it is necessary to estimate the pupil-teacher ratios needed to eliminate oversize classes. It has been calculated from statistics of the size of classes as registered, that a pupil-teacher ratio of 26.3:1 would eliminate classes over 40 in primary schools. For secondary schools a corresponding calculation is performed using statistics of the size of classes as taught, which in general bear little relation to the sizes of classes as registered. The Department therefore collects statistics of classes in secondary schools as taught, distinguishing between (a) classes of pupils aged wholly or mainly under 15 years, (b) classes of pupils aged wholly or mainly 15 years old and over but not in the sixth form, and (c) sixth forms. The method of calculation used to estimate the relevant pupil-teacher ratios is described in Appendix C to the Ninth Report of the National Advisory Council on the Training and Supply of Teachers.

The problem of estimating the staffing ratio necessary to ensure that the regulation on oversize classes can be observed, is the subject of continuing study by the Department. A small change in the estimated staffing ratio can have a considerable effect on the corresponding demand for teachers.

Official estimates of the future school population and of the future demand for teachers have not, as yet, assumed any deliberate changes in the pattern of attendance at schools, except for a raising of the school leaving age. The term "pattern of attendance" is taken to cover (a) the ages of children on starting school, ages on transfer through the different types of school and the school leaving age and (b) full or part-time attendance at various ages during a day or during the year (e.g. 3-terms' attendance in a 4-term year). As there is much current interest in possible changes in the pattern of attendance at the lower end of the age range in schools, some of the latest forecasts of the demand for teachers in schools have illustrated the effect on staffing requirements of several of these changes. (See Appendix D of the Ninth Report of the National Advisory Council on the Training and Supply of Teachers).

The assumed staffing ratios and forecasts of school population enable estimates to be made of the demand for teachers in future years. If necessary, the estimated demand for teachers can be modified by making assumptions of a change in pattern of attendance at school.

B. Assessing Supply

The main sources of supply of newly qualified teachers are the universities and colleges of education. The students in colleges of education are being prepared specifically for the teaching profession and the majority are subsequently employed in maintained schools.

Only a small proportion of students fail to complete their course or take employment outside the maintained schools and so it is not too difficult to estimate the future annual recruitment from colleges once assumptions have been made about the size of the intake into courses of initial training. The size of intake has been determined in recent years by the number of places in the colleges, as the demand for college places by suitable candidates has slightly exceeded the places available. Points that have been considered in calculations have been the numbers of students, their length of course and the proportion of men to women in the colleges. This sex ratio has an important long-term effect due to the higher wastage rates of women teachers.

Recruitment from universities depends on far more assumptions. The size of university expansion and the proportion of graduates who will enter teaching are the major predictions that have to be made. The various opportunities of employment open to the graduate and the possible introduction of a requirement that all graduates entering teaching must attend an initial course of teacher training are elements that need to enter into calculations. Separate estimates are made of graduate recruitment according to the age and sex of graduates, types of degree (Arts or Science) and whether the student has taken a course of teacher training.

Other smaller categories of entrants for whom assumptions have to be made as to the size of future entry are :

- (a) Untrained non-graduates with specialist qualifications.
- (b) Entrants from overseas.
- (c) Entrants from Scotland and Northern Ireland.

Teachers who return to teaching after a break in service make an important contribution to supply. Married women are much the largest category of these re-entrants. Professor Kelsall's survey "Women and Teaching" provides some valuable evidence on which assumptions can be based as to the numbers of married women re-entrants in future years. The Department plans, in due course, to measure the numbers of qualified teachers no longer engaged in teaching. This is the pool from which married women returners and other re-entrants are drawn. It should then be possible to express re-entry figures as a rate to be applied to the pool of inactive qualified teachers and to determine trends in such re-entry rates.

The wastage rate of teachers is the key to the supply problem. The trends of wastage among men and women teachers are calculated for non-graduates and graduates separately. When making assumptions of future wastage rates for women, data relating to ages of marriage and patterns of family building are again relevant.

The Department will in due course add teachers' part-time service to their record of teachers' full-time service which forms part of the Automatic Data Processing system referred to above. This would enable the same techniques of wastage and re-entry rates to be applied to this class of teacher as to full-time teachers. At present, however, forecasts have to be based on the limited data currently available about the numbers of part-time teachers in service. The forecast of the full-time equivalent service of part-time teachers is added to the projection of the supply of full-time teachers to give an assessment of the total supply of teachers.

The arithmetic of projecting the supply of full-time teachers is performed by computer. Basically, the programme takes the number of teachers of any one age in a given year and reduces these according to the estimated wastage for that year and age. This gives the number of teachers who will be one year older in the following year. To this number is added the estimated entry of teachers of this particular age during that year, giving a final figure of estimated stock at the beginning of the next year. The following is a summary of the computer programme :

- (i) the "stock of teachers (at 31st March base year) analysed by age (in integers i.e. 20, 21, 22, ..., 58, 59, 60 and over);
- (ii) the annual percentage wastage which varies both from one age to another and from one year to another;
- (iii) the annual entry (including re-entry) of teachers analysed by age (which also varies from one year to another). From these are computed the numbers of teachers of each age (or age group) in selected future years.

Algebraically, if

$x_{y,a}$ = number of teachers at 31st March year y of age a,

$100.w_{y,a}$ = wastage percentage during year ending 31st March year y of teachers who at the beginning of that year were of age a,

$e_{y,a}$ = entry during year ending 31st March year y of teachers who, at the end of that year, were of age a,

then $x_{y,a} = x_{y-1, a-1} (1 - w_{y,a-1}) + e_{y,a}$.

[Note that the wastage percentage is not applied to entrants in their year of entry].

For teacher supply in maintained primary and secondary schools, separate projections are made for :

- (i) Non-graduate teachers
- (ii) Trained maths/science graduates.
- (iii) Untrained maths/science graduates.
- (iv) Trained arts graduates.
- (v) Untrained arts graduates.

These categories are given separately for men and women and are divided between primary and secondary schools.

ANNEX II

LIST OF PUBLICATIONS REFERRED TO IN THE OECD STUDY OF THE DEMAND AND SUPPLY OF TEACHERS IN PRIMARY AND SECONDARY EDUCATION IN ENGLAND AND WALES

- "The Educational System of England and Wales" by the Department of Education and Science (D.E.S.)
- "The Schools Regulations 1959 (No. 364) : "Schools Amending Regulations 1963 (No. 1468), 1964 (No. 1311), 1965 (No. 3)" - Statutory Instruments.
Education Act 1944.
- "The Direct Grant Schools Amending Regulations 1963 (No. 1379), 1964 (1321), 1965 (1978 and I)"-Statutory Instruments.
- "Recognition of Schools etc. as Efficient", Ministry of Education, Rules 16
- "The Ninth Report of the National Advisory Council for the Training and Supply of Teachers (N.A.C.T.S.T.) on the Demand for and Supply of Teachers in Primary and Secondary Schools 1963-1986".
- "The N.A.C.T.S.T. Report of the Standing Sub-Committee on Teachers for Further Education on the Supply and Training of Teachers for Further Education".
- "The Supply and Training of Teachers for Technical Colleges (1957)", Report of a Special Committee appointed by the Minister of Education.
- "Teachers for Further Education (1961)", Report of and Advisory Sub-Committee of the N.A.C.T.S.T.
- "A Note on the Educational Work of the Training Colleges and University Department's of Education", Appendix to W.P.(5), Paper No. 3.
- "One Year and One Term Courses of Further Training for Qualified Teachers 1965-1966", Administrative Memorandum No. 12/64.
- "Programme of One Year and One Term Courses for Qualified Teachers". Issued annually by D.E.S.
- "Programme of Short Courses for Teachers and Others engaged in the Educational Service".
- "Courses of Further Training for Teachers", D.E.S. Circular No. 7/64.
- "Courses of Further Training for Teachers in Further Education", D.E.S. Circular No. 7/66.
- "Train to Teach" and "Turn to Teaching", by the D.E.S.
- "Careers in Education for Graduates", by D.E.S.
- "Women and Teaching (1963)", Report on an Independent Nuffield Survey following-up a large national sample of women who entered teaching in England and Wales at various dates pre-war and post-war, by R. Kelsall.

- "Part-time Teaching in Schools", Report on Education No. 21.
- "Part-time Teaching in Schools", D.E.S. Circular No. 6/65.
- "Scales and Salaries for Teachers in Primary and Secondary Schools (1967)", Report of the Burnham Primary and Secondary Committee.
- "Scales and Salaries for Teachers in Establishments for Further Education (1965)", Report of the Burnham Further Education Committee.
- "Teachers' Superannuation. Explanatory Memorandum", D.E.S. Form 199 Pen.
- "Conditions of Tenure of Teachers in County and Voluntary Schools" and "Teachers' Sick Pay Regulations" - Recommendations from the Joint Conference of the Association of Education Committees, Association of Municipal Corporations, County Councils Association, National Union of Teachers.
- "Appointment of Teachers : Model Agreements" - Recommendations from the Association of Education Committees.
- "Conditions of Service of Teachers in Establishments for Further Education" - Recommendations from the Joint Conference of the Association of Education Committees, Association of Municipal Corporations, County Councils Association, Association of Technical Institutions, Association of Principals of Technical Institutions, Association of Teachers in Technical Institutions, National Union of Teachers, National Society for Art Education.
- "Redundancy Payments Act 1965".
- "Report of the Arbitral Body on Salaries of Teachers in Primary and Secondary Schools (1967)".
- "Science for the Young School Leaver", "Raising of the School Leaving Age" and "English" - Working Papers of the Schools Council for Curriculum and Examinations.
- "Audio-Visual Aids in Higher Scientific Education" - Report by the Committee appointed by the University Grants Committee, the D.E.S. and the Scottish Education Department.
- "Children and their Primary Schools", a report by the Central Advisory Council for Education (England) (January 1967).
- "Interim Report of the Working Group of Manpower Parameters for Scientific Growth" (October 1966) Cmnd. 3102.

ANNEX III

STATISTICAL ANNEX (1)

(A) Primary Education (2)

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(1) The numbering of these tables follows those set out in the questionnaire elaborated for this study by the OECD Secretariat.

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Table I(a)

Number of full-time teachers employed in primary education by sex in
the years 1950, 1955, 1960, 1965

(January)

	1950(2)			1955(2)			1960			1965		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
	33,725	96,738	130,463	39,519	109,375	148,894	35,368	107,782	143,150	36,185	108,834	144,999
Primary Maintained	2,284	2,285	4,569	2,730	2,901	5,631	3,942	7,819	11,761	3,931	7,038	10,969
Non-maintained(1)												
Total	36,009	99,023	135,032	42,249	112,276	154,525	39,310	115,601	154,911	40,116	115,852	155,968

Notes: (1) Excludes direct grant nursery.

(2) Excludes independent schools not recognised as efficient.

Table I(b)

Number of part-time teachers and full-time equivalent employed in primary education in
the years 1950, 1955, 1960, 1965

(January)

	Number				Full-time equivalent		
	1950(1)	1955(1)	1960	1965	1955(1)	1960	1965
Primary							
Maintained	1,550	2,509	5,012	15,978	827	2,506	7,025
Non-maintained(2)	1,481	1,940	5,779	5,382	652	810	1,721
Total	3,031	4,449	10,791	21,360	1,479	3,316	8,746

(1) Excludes independent schools not recognised as efficient.

(2) Excludes direct grant nursery.

Table I(c)

Graduate and non-graduate teachers by sex and by first stated degree subject (for the graduate teachers)
in maintained primary schools (at 31st March 1963)

	Science subjects Graduate teachers			Humanities Graduate teachers			Other subjects Graduate teachers			All subjects Graduate teachers			Others			All teachers		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Primary(1)																		
1st class honours(2)	13	7	20	54	53	107	27	4	31	94	64	158						
2nd class honours	81	62	143	712	847	1,559	45	100	145	838	1,009	1,847						
Others	397	233	630	1,343	1,420	2,763	199	249	448	1,939	1,902	3,841						
Total	491	302	793	2,109	2,320	4,429	271	353	624	2,871	2,975	5,846	32,721	100,512	133,233	35,592	103,487	139,079

(1) Including nursery schools (women teachers), all age schools and visiting and relief teachers in primary schools.

(2) Including graduates holding higher degrees where the class of the first degree is not known.

Table I(d)

Teachers in maintained primary and secondary schools by sex
and qualifications for the years 1955, 1960, and 1966 (at 31st March)

	Actual		
	1955	1960	1965
Men			
Full-time qualified teachers			
Graduates			
Trained	18,728	23,510	26,742
Not trained(1)	5,339	8,528	10,728
Total	24,067	32,038	37,470
Non-graduates			
Trained	60,962	66,240	74,507
Not trained(1)	5,400	7,014	8,183
Total	66,362	73,254	82,500
Full-time equivalents of part-time qualified teachers(2)	300	700	1,150
Non-qualified teachers	264	1,530	"
Women			
Full-time qualified teachers			
Graduates			
Trained	13,279	14,591	15,000
Not trained(1)	3,255	5,393	6,100
Total	16,534	19,984	21,100
Non-graduates			
Trained	111,871	123,539	125,300
Not trained(1)	14,074	12,400	11,250
Total	125,945	135,939	136,550
Full-time equivalents of part-time qualified teachers(2)	1,800	5,000	10,600
Non-qualified teachers	4,704	4,806	"
Men and Women			
Full-time qualified teachers			
Graduates			
Trained	32,007	38,101	41,850
Not trained(1)	8,594	13,921	16,925
Total	40,601	52,022	58,775
Non-graduates			
Trained	172,833	189,779	199,300
Not trained(1)	19,474	19,414	19,750
Total	192,307	209,193	219,050
Full-time equivalents of part-time qualified teachers(2)	2,100	5,700	11,750
Non-qualified teachers	4,968	6,336	"

(1) The heading 'not trained' includes a number of teachers trained outside England and Wales.

(2) Estimated.

Table II(a)

TEACHERS IN FULL-TIME SERVICE

Ages of teachers in maintained primary and secondary schools(1) by sex and qualification for the year 1963
(At 31st March, 1963)

Age	Qualified teachers				Non-qualified	All teachers
	Graduates		Non-graduates	Total		
	Matr. nat. and science	Other subjects(2)				
Men						
20 and under	29	36	11	65	11	942
21	174	265	1,290	4,399	400	953
22	408	737	1,894	1,145	1,729	495
23	511	1,017	1,918	1,528	3,039	1,816
24	2,044	5,216	9,668	7,260	12,428	3,102
25-29	1,424	3,958	11,232	5,382	17,614	3,487
30-34	1,030	3,249	10,593	4,279	16,872	17,301
35-39	657	2,375	10,593	3,032	16,914	17,301
40-44	1,056	2,994	10,907	4,060	14,868	15,898
45-49	1,476	2,724	8,907	3,200	11,977	12,454
50-54	1,265	1,836	8,838	2,600	14,957	15,221
55-59	586	726	6,165	3,101	13,038	13,624
60-64	55	75	2,310	1,312	9,256	9,631
65 and over			233	130	3,642	3,875
Total	10,715	25,208	77,971	35,923	113,894	115,401
Married women(3)						
20 and under	15	22	3	37	3	32
21	60	146	516	2,066	553	577
22	116	329	2,768	445	1,968	1,999
23	156	423	2,957	579	3,213	3,249
24	408	1,455	11,257	1,863	12,879	13,287
25-29	163	708	7,668	871	8,539	8,923
30-34	158	686	6,814	844	7,658	8,046
35-39	134	613	7,290	747	8,037	8,426
40-44	220	829	8,280	1,049	9,329	9,752
45-49	233	913	8,019	1,146	9,165	9,598
50-54	184	626	8,067	810	8,877	9,261
55-59	59	179	2,828	238	3,066	3,245
60-64	2	21	454	23	477	519
65 and over						
Total	1,908	6,950	68,442	8,858	77,300	80,771
All women						
20 and under	1	1	38	2	40	1,475
21	45	87	3,325	132	3,457	1,515
22	144	457	7,061	601	7,662	2,583
23	319	912	7,389	1,531	8,920	2,773
24	325	1,005	6,524	1,520	7,854	8,681
25-29	788	3,140	20,561	2,828	24,389	24,896
30-34	403	1,817	14,024	1,679	16,244	16,395
35-39	380	1,612	11,679	1,592	13,671	14,100
40-44	295	1,322	12,006	1,617	13,623	13,858
45-49	510	1,264	13,985	2,194	16,179	16,372
50-54	530	1,082	14,245	2,472	16,717	17,042
55-59	588	1,889	16,117	2,477	18,594	18,969
60-64	182	590	5,617	772	6,389	6,782
65 and over	9	55	779	64	843	915
Total	4,519	16,513	133,350	21,032	154,382	160,124
Total men and women	15,234	41,721	211,321	56,955	268,276	275,525

(1) Including teachers in nursery schools (women teachers), all-age schools and visiting and relief teachers.
(2) Including graduates whose degree subjects were not known.
(3) Excluding widows.

TABLE II(b)

Teachers in part-time service

Age of teachers in maintained primary and secondary schools(1)
by sex and qualifications for the year 1963

(At 29th June, 1963)

Age at 31st December 1963	With previous service as a full time qualified teacher(2)				With no previous service as a full time qualified teacher(2)				All teachers				Total	
	Graduates		Non-graduates		Graduates		Non-graduates		Graduates		Non-graduates			
	Trained(3)		Untrained		Trained(3)		Untrained		Trained(3)		Untrained			
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women		
Men	Under 25	6	11	8	54	22	54	14	137	28	54	22	137	241
	25-29	33	12	30	79	32	79	35	153	65	90	65	161	361
	30-34	43	4	20	55	11	55	12	94	54	67	32	122	275
	35-39	17	3	58	35	8	35	6	96	17	39	88	96	240
	40-44	12	3	26	24	-	24	30	50	20	27	32	50	129
	45-49	25	-	3	9	-	9	8	56	9	9	11	56	101
	50-54	35	11	5	33	9	33	8	84	44	44	13	84	185
	55-59	12	17	5	31	21	31	4	75	33	48	9	75	165
	60-64	59	37	148	17	-	17	10	109	59	54	158	116	387
	65 and over	90	39	403	19	-	19	18	106	90	58	421	154	723
Total	332	134	706	356	103	356	145	960	435	490	851	1,051	2,827	
Single Women	Under 25	-	-	20	44	25	44	83	158	25	44	103	158	330
	25-29	11	-	64	40	27	40	69	49	61	51	133	166	299
	30-34	27	-	66	-	-	-	6	28	11	-	66	35	112
	35-39	4	-	33	7	4	7	5	44	27	18	39	15	88
	40-44	19	5	30	13	-	13	18	9	8	7	61	44	105
	45-49	7	-	43	17	-	17	10	64	19	17	50	9	96
	50-54	5	-	56	40	-	40	14	74	7	8	70	84	141
	55-59	58	22	171	-	10	-	25	61	15	22	196	74	177
	60-64	42	25	264	11	4	-	18	31	42	36	282	93	453
	Total	207	71	787	139	70	139	248	528	277	210	1,035	633	2,155
Married women	Under 25	7	31	171	51	31	39	86	38	82	210	86	416	
	25-29	209	102	1,145	67	44	111	95	253	169	1,256	99	1,777	
	30-34	328	84	2,066	73	16	93	268	344	157	2,159	266	2,946	
	35-39	288	83	2,008	183	18	130	499	306	266	2,138	520	3,230	
	40-44	281	43	1,365	60	14	138	710	295	141	1,503	770	2,709	
	45-49	308	31	1,201	77	49	87	656	357	116	1,288	733	2,494	
	50-54	291	27	914	26	29	145	500	320	53	1,059	576	2,008	
	55-59	90	34	702	17	-	54	370	90	51	756	519	1,416	
	60-64	44	17	434	14	4	26	187	48	31	460	283	822	
	65 and over	21	7	336	7	-	24	81	21	14	360	192	587	
Total	1,867	459	10,342	621	205	621	847	3,452	2,072	1,080	11,189	4,064	18,405	
All women	Under 25	7	31	191	95	56	122	244	63	126	313	244	746	
	25-29	243	113	1,209	107	71	180	144	314	220	1,389	153	2,076	
	30-34	339	64	2,132	73	16	93	296	355	157	2,225	321	3,058	
	35-39	285	83	2,041	190	18	136	509	333	273	2,177	535	3,318	
	40-44	285	48	1,395	60	18	143	754	303	159	1,538	814	2,814	
	45-49	327	31	1,244	77	49	105	665	376	123	1,349	742	2,590	
	50-54	298	27	954	92	29	155	564	327	70	1,109	643	2,149	
	55-59	95	42	758	43	10	68	444	105	59	826	603	1,593	
	60-64	102	39	605	17	8	51	248	110	53	656	357	1,176	
	65 and over	63	32	600	18	-	42	112	63	50	642	285	1,040	
Total	2,074	530	11,129	760	275	760	1,095	3,980	2,349	1,290	12,224	4,697	20,560	

(1) Excluding nursery and special schools.

(2) In a maintained primary or secondary (excluding nursery and special) school.

(3) Including those trained outside England and Wales.

Table III

Enrolments and population of corresponding age in primary education for the years
1950, 1955, 1960, 1965 and estimates for 1970, 1975, 1980

(January)

	Maintained schools	Non maintained schools	Total	Population of relevant age (5-10)
<u>Past</u>				
1950	3,976,551	257,644 (1)	4,234,195	
1955	4,623,989	250,583 (1)	4,874,572	4,364.0
1960	4,222,880	186,776 (1)	4,409,656	3,959.0
1965	4,297,015	169,899 (1)	4,466,914	4,133.0
<u>Estimates for the future</u> (2)				
1970	4,979.8	300.9 (3)	5,280.7 (3)	4,798.0
1975	5,544.2	305.6 (3)	5,849.8 (3)	5,314.0
1980	5,866.5	295.2 (3)	6,161.7 (3)	5,589.0

(1) Excludes direct grant nursery.

(2) Infants and other juniors.

(3) Includes pupils data of maintained and non-maintained special schools (86.1 in 1970; 98.4 in 1975; 109.7 in 1980) which cannot be eliminated from this table and from table IX.

Table IV (a)

Entry and Wastage of qualified women teachers in maintained primary and secondary schools (1) by age for the years 1960/61, 1961/62, 1962/63

(Year ended 31st March)

Age at the end of year	Trained graduates				Untrained graduates				Qualified non-graduates				All qualified teachers			
	(2)		(3)		(2)		(3)		(2)		(3)		(2)		(3)	
	Entrants	Re-Entrants	Wastage	Wastage Per-centage	Entrants	Re-Entrants	Wastage	Wastage Per-centage	Entrants	Re-Entrants	Wastage	Wastage Per-centage	Entrants	Re-Entrants	Wastage	Wastage Per-centage
1962/63																
Under 25	860	41	133	12.9	704	48	348	31.8	2,185	461	3,085	12.5	3,749	550	3,566	13.3
25-29	86	127	596	20.1	190	93	539	33.6	375	1,202	4,737	20.0	651	1,422	5,872	20.8
30-34	22	123	265	15.0	61	56	124	21.3	211	1,414	1,908	13.3	294	1,593	2,297	13.8
35-39	19	102	108	7.2	41	37	48	10.7	181	1,085	716	6.4	241	1,224	2,872	6.7
40-44	14	73	59	4.9	27	21	38	9.9	170	662	499	4.3	211	756	596	4.5
45-49	6	53	54	3.2	15	12	28	5.4	86	531	429	3.1	107	596	511	3.2
50-54	6	55	63	3.2	11	14	36	7.0	52	304	431	3.0	69	373	530	3.2
55-59	2	31	84	4.1	3	12	37	7.4	27	247	536	3.3	32	290	657	3.2
60 and over	3	8	158	23.2	36	8	73	22.1	33	146	2,051	24.8	72	162	2,282	24.6
Total	1,018	613	1,520	10.3	1,088	301	1,271	21.3	3,320	6,052	14,392	10.4	5,426	6,966	17,183	10.8
1961/62																
Under 25	933	32	133	13.2	799	29	303	29.1	9,274	297	3,124	12.6	11,006	358	3,560	13.2
25-29	122	101	631	21.2	195	67	436	30.2	616	907	4,511	19.3	933	1,075	5,578	20.1
30-34	37	99	226	12.8	86	44	132	24.0	361	1,112	1,820	13.1	1,066	1,255	2,178	13.4
35-39	18	74	123	8.6	39	22	69	16.0	256	790	778	7.3	313	886	970	7.7
40-44	13	66	41	3.4	36	20	39	10.7	238	570	442	3.7	287	656	502	3.9
45-49	18	54	58	3.4	26	17	41	7.6	163	421	382	2.7	207	481	481	2.9
50-54	12	39	48	2.3	12	13	23	4.6	82	284	386	2.6	106	336	457	2.6
55-59	7	25	98	5.1	6	13	29	5.7	36	222	531	3.3	49	260	658	3.6
60 and over	3	4	175	30.8	3	12	99	30.7	16	114	2,387	29.6	22	130	2,661	29.7
Total	1,163	494	1,533	10.4	1,202	237	1,171	20.5	11,042	4,717	14,341	10.5	13,407	5,448	17,045	10.8
1960/61																
Under 25	902	46	117	12.3	787	43	263	28.6	8,472	941	2,631	10.8	10,161	1,030	3,011	11.5
25-29	88	95	563	19.0	199	49	384	30.5	465	875	4,114	18.2	752	1,019	5,117	18.2
30-34	35	83	253	13.8	69	31	137	24.5	215	889	1,814	13.2	319	1,003	2,204	13.7
35-39	21	61	95	7.0	28	26	57	13.9	183	684	677	6.5	232	771	829	6.8
40-44	11	50	49	3.9	13	25	32	8.4	139	470	421	3.7	163	545	502	3.8
45-49	19	47	48	2.7	23	23	29	5.4	113	419	421	3.0	155	489	498	3.0
50-54	9	29	54	2.5	14	8	28	5.5	66	252	398	2.6	89	289	480	2.6
55-59	5	17	76	4.3	11	6	28	5.5	36	179	527	3.5	52	202	631	3.6
60 and over	2	3	157	30.7	1	5	87	28.5	14	84	2,424	30.2	17	92	2,668	30.2
Total	1,092	431	1,412	9.7	1,145	216	1,045	19.4	9,703	4,793	13,483	9.9	11,940	5,440	15,940	10.2

(1) Teachers who entered during a year and left before the end of the same year are excluded from the figures of both entrants and wastage.

(2) Including transfers from other grant-aided schools and establishments.

(3) Expressed as a percentage of the numbers in the age-group in service at the beginning of the year.

Entry and wastage of qualified men teachers in maintained primary and secondary schools by age for the years 1960/61, 1961/62, 1962/63 (1)

Age at end of year	Trained graduates			Interned graduates			Qualified non-graduate			All qualified teachers		
	(2) Entrants	Re-Entrants	Wastage Per-centage	(2) Entrants	Re-Entrants	Wastage Per-centage	(2) Entrants	Re-Entrants	Wastage Per-centage	(2) Entrants	Re-Entrants	Wastage Per-centage
1962/63												
Under 25	1,015	30	36	693	38	169	1,159	68	241	2,847	136	446
25-29	300	136	280	321	110	416	499	225	590	1,130	471	1,276
30-34	43	69	225	101	62	159	288	174	545	432	305	929
35-39	17	44	141	53	35	87	280	112	391	290	131	529
40-44	12	27	96	45	26	51	134	111	380	191	164	529
45-49	6	17	95	27	22	36	85	87	259	118	126	390
50-54	7	23	81	23	14	10	47	37	137	77	74	228
55-59	2	7	38	12	11	41	12	23	152	26	41	231
60 and over	2	5	184	41	11	144	28	15	677	71	31	1,005
Total	1,404	358	1,178	1,296	329	1,113	2,472	852	3,330	5,172	1,539	5,621
1961/62												
Under 25	936	30	52	711	14	140	3,106	47	108	4,753	91	300
25-29	368	68	301	385	70	373	794	95	540	1,547	233	1,214
30-34	56	42	176	130	23	142	369	101	462	555	166	780
35-39	33	28	90	71	19	85	199	74	298	303	121	473
40-44	11	13	26	52	19	55	169	60	255	232	92	336
45-49	15	14	52	39	10	50	107	52	207	161	76	309
50-54	6	8	48	20	8	36	57	19	130	83	35	214
55-59	5	8	42	19	7	23	21	10	125	45	25	190
60 and over	1	2	222	10	8	156	8	22	710	19	32	1,008
Total	1,431	213	1,009	1,437	178	1,060	4,930	480	2,835	7,698	871	4,904
1960/61												
Under 25	1,041	34	34	640	29	141	2,485	273	79	4,166	336	254
25-29	401	64	195	392	70	357	646	167	460	1,439	301	1,012
30-34	79	36	147	108	25	125	267	94	380	454	155	652
35-39	31	24	76	68	19	80	177	86	238	276	129	394
40-44	21	19	40	44	13	33	157	63	202	222	95	275
45-49	15	10	59	50	10	36	105	44	173	170	64	268
50-54	14	6	43	39	10	10	55	25	92	108	41	145
55-59	5	5	43	17	9	24	14	7	89	36	21	156
60 and over	-	2	190	11	8	137	8	9	721	19	19	1,048
Total	1,607	200	827	1,369	193	943	3,914	768	2,434	6,892	1,161	4,20

Teachers who entered during a year and left before the end of the same year are excluded from the figures of both entrants and wastage.

(2) Including transfers from other grant-aided schools and establishments.

Expressed as a percentage of the numbers in the age-group in service at beginning of year.

Table V(a)
Training of Teachers:

Students admitted to courses of initial training 1955-56 to 1965
by sex and by type of training

	Academic years						Calendar years			
	1955-56	1958-59	1959-60	1960-61	1961-62	1962-63	1962	1963	1964	1965
Men and women										
In university departments of education	2,396	2,789	3,266	3,217	3,232	3,259	3,259	3,441	3,732	3,692
In colleges of education	12,172	14,558	15,736	16,747	16,785	17,804	17,666	21,486	25,076	29,616
In art training centres	429	417	428	486	488	454	454	519	677	689
In colleges of education (technical)	281	447	483	524	511	661	642	815	959	879
All establishments	15,278	18,211	19,913	20,974	21,016	22,178	22,021	26,261	30,444	34,876
Men										
University departments of education										
Post-graduate	1,272	1,648	1,937	1,881	1,926	1,901	1,901	1,973	1,924 ⁽¹⁾	1,893 ⁽¹⁾
One-year general	11	8	5	11	7	7	7	18	4	3
One-year specialist	-	1	26	23	27	12	12	26	35	34
Total	1,283	1,657	1,968	1,915	1,960	1,920	1,920	2,017	1,963	1,930
Colleges of Education										
One-year										
Post-graduate	68	141	105	70	111	197	197	247	294	228
General	44	106	149	174	143	69	69	97	100	80
Specialist	31	38	55	68	109	164	125	176	212	205
Two-year general	2,545	3,400	4,102	617	335	301	299	390	415	452
Three-year general	-	-	-	4,038	4,165	4,325	4,313	5,366	6,224	7,170
Four-year combined degree and training	6	144	142	139	216	202	202	228	182	183
Total	2,694	3,829	4,553	5,106	5,079	5,258	5,205	6,484	7,427	8,318
Art training centres	206	185	209	232	249	231	231	252	308	293 ⁽²⁾
Colleges of education (technical)	277	368	386	425	422	550	536	691	800	700 ⁽²⁾
Total men	4,400	6,039	7,116	7,678	7,710	7,959	7,892	9,444	10,498	11,241
Women										
University departments of education										
Post-graduate	1,100	1,124	1,249	1,256	1,227	1,302	1,302	1,366	1,718 ⁽¹⁾	1,719 ⁽¹⁾
One-year general	13	6	6	10	6	7	7	8	1	1
One-year specialist	-	2	43	36	39	30	30	50	50	42
Total	1,113	1,132	1,298	1,302	1,272	1,339	1,339	1,424	1,769	1,762
Colleges of education										
One-year										
Post-graduate	126	185	184	190	200	189	188	254	297	330
General	45	101	110	67	63	36	36	45	52	62
Specialist	27	41	50	70	54	56	58	91	147	180
Two-year										
General	8,153	9,218	9,606	974	432	445	445	546	667	766
Housecraft	-	-	-	4	15	15	15	20	21	15
Three-year										
General	-	-	-	8,949	9,555	10,341	10,261	12,502	14,715	17,883
Housecraft	778	819	819	898	901	940	934	956	1,081	1,226
Physical education	325	342	390	454	424	477	477	517	583	719
Four-year combined degree and training	24	23	25	35	62	47	47	71	86	117
Total	9,478	10,729	11,183	11,641	11,706	12,546	12,461	15,002	17,649	21,298
Art training centres	223	232	219	254	239	223	223	267	369	396 ⁽²⁾
Colleges of education (technical)	64	79	97	99	89	111	106	124	159	179 ⁽²⁾
Total women	10,678	12,172	12,797	13,296	13,306	14,219	14,129	16,817	19,946	23,635

(1) Excluding 47 men and 29 women in October 1964, and 32 men and 26 women in October 1965, admitted to post-graduate courses in the teaching of English overseas.

(2) Including 17 men and 3 women admitted to 4 term courses.

Table V(b)

Students in initial training courses 1955-56 to 1965 by sex and type of training

	Academic years						October			
	1955-56	1958-59	1959-60	1960-61	1961-62	1962-63	1962	1963	1964	1965
Men and women										
in university departments of education	2,396	2,789	3,266	3,217	3,235	3,260	3,260	3,443	3,739	3,695
in colleges of education	24,578	28,476	30,545	32,645	33,480	46,724	46,586	52,621	60,475	71,283
in art training centres	429	417	429	487	488	454	454	519	678	689
in colleges of education (Technical)	281	447	483	525	513	661	642	815	959	884
All establishments	27,684	32,129	34,723	36,874	37,716	51,099	50,942	57,398	65,851	76,551
Men										
University departments of education	1,272	1,648	1,937	1,881	1,928	1,902	1,902	1,974	1,927 ⁽¹⁾	1,896 ⁽¹⁾
Post-graduate	11	8	5	11	7	7	7	18	4	3
One-year general	-	1	26	23	28	12	12	26	35	34
One-year specialist	-	-	-	-	-	-	-	-	-	-
Total	1,283	1,657	1,968	1,915	1,963	1,921	1,921	2,018	1,966	1,933
College of education										
One-year	68	141	105	70	111	198	198	247	294	228
Post-graduate	44	107	151	175	143	69	69	97	101	80
General	31	38	55	68	109	164	125	156	212	206
Specialist	5,062	6,278	7,406	4,641	966	633	631	682	790	857
Two-year general	-	-	-	4,045	8,007	12,090	12,078	13,574	15,524	18,244
Three-year general	31	262	356	382	522	549	549	650	702	703
Four-year combined degree and training	-	-	-	-	-	-	-	-	-	-
Total	5,236	6,826	8,073	9,381	9,858	13,703	13,650	15,406	17,623	20,318
Art training centres	206	185	209	232	249	231	231	252	308	293
Colleges of Education (technical)	217	368	386	425	424	550	536	691	800	704
Total men	6,942	9,036	10,636	11,953	12,494	16,405	16,338	18,367	20,697	23,248
Women										
University departments of education	1,100	1,124	1,249	1,256	1,227	1,302	1,302	1,367	1,722 ⁽¹⁾	1,719 ⁽¹⁾
Post-graduate	13	6	6	10	6	7	7	8	1	1
One-year general	-	2	43	36	39	30	30	50	50	42
One-year specialist	-	-	-	-	-	-	-	-	-	-
Total	1,113	1,132	1,298	1,302	1,272	1,339	1,339	1,425	1,773	1,762
Colleges of education										
One-year	126	185	184	191	200	191	190	254	298	330
Post-graduate	45	105	123	74	63	36	36	45	52	62
General	27	41	50	70	54	56	58	91	147	180
Specialist	-	-	-	-	-	-	-	-	-	-
Two-year	15,974	17,810	18,549	10,284	1,164	870	870	987	1,193	1,400
General	-	-	-	4	19	27	27	31	38	33
Housecraft	-	-	-	-	-	-	-	-	-	-
Three-year	-	-	-	8,962	18,282	27,760	27,680	31,518	36,476	43,695
General	2,208	2,420	2,418	2,433	2,508	2,632	2,626	2,725	2,879	3,178
Housecraft	902	1,000	1,056	1,149	1,210	1,305	1,305	1,375	1,524	1,778
Physical education	60	89	92	97	122	144	144	189	245	309
Four-year combined degree and training	-	-	-	-	-	-	-	-	-	-
Total	19,342	21,650	22,472	23,264	23,622	33,021	32,936	37,215	42,852	50,965
Art training centres	223	232	220	255	239	223	223	267	370	396
Colleges of education (technical)	64	79	97	100	89	111	106	124	159	180
Total women	20,742	23,093	24,087	24,921	25,222	34,694	34,604	39,031	45,154	53,303

(1) Excluding 47 men and 29 women in October 1964, and 32 men and 26 women in October 1965, admitted to post-graduate courses in the teaching of English overseas.

Table V(a)
Male Students completing courses of initial training 1954-55 to 1964-65 (1)
by type of training

	Academic years									
	1954-55	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65
Men										
University departments of education										
Postgraduate (2)										
PASSES	1,369	1,346	1,511	1,582	1,858	1,806	1,858	1,801	1,881	1,797
FAILURES	59	16	51	65	64	51	57	64	56	83
One-year general (3)										
PASSES						10	7	6	16	4
FAILURES						-	-	-	-	-
One-year Specialist (3)										
PASSES						19	23	11	24	34
FAILURES						1	3	-	1	-
Total										
PASSES	1,369	1,346	1,511	1,582	1,858	1,835	1,888	1,818	1,921	1,835
FAILURES	59	16	51	65	64	52	60	64	57	83
Colleges of education										
One-year Postgraduate (2)										
PASSES		81	92	136	97	84	98	161	217	267
FAILURES						5	8	14	17	17
General (3)										
PASSES	80	51	73	108	145	153	140	62	89	95
FAILURES	4	4	3	2	1	-	3	3	4	3
Specialist (3)										
PASSES		30	34	38	77	63	105	122	151	202
FAILURES		-	-	1	3	1	2	1	3	6
Two-year general										
PASSES	2,272	2,360	2,487	2,691	3,211	3,847	646	374	269	354
FAILURES	48	61	79	89	109	154	27	12	16	8
Three-year general										
PASSES	-	-	-	-	-	-	-	3,468	3,782	3,891
FAILURES	-	-	-	-	-	-	-	208	189	224
Four-year combined degree and training										
PASSES	9	15	23	18	58(4)	13	63	67(4)	64(4)	96(4)
FAILURES	-	-	-	-	-	4	-	1	1	3
Total										
PASSES	2,361	2,537	2,709	2,991	3,588	4,160	1,052	4,254	4,572	4,905
FAILURES	52	65	82	92	113	164	38	239	230	261
Art training centres										
PASSES	180	180	183	175	200	217	238	217	231	292
FAILURES	10	1	5	10	9	9	8	13	15	9
Colleges of education (technical)										
PASSES	184	232	261	332	363	427	393	516	678	772
FAILURES	11	-	4	5	6	4	8	10	9	11
All establishments										
PASSES	4,094	4,295	4,664	5,080	6,009	6,639	3,571	6,805	7,402	7,804
FAILURES	132	82	142	172	192	229	116	326	311	364

- (1) Figures relate to students taking the examination for the first time; thus students who fail and later pass on re-examination are only included in the failure figures. Students leaving courses prematurely are not included in the table.
- (2) Separate figures for students following post-graduate courses in colleges of education are not available for 1954-55. For that year these students have been included with those on post-graduate courses in university departments of education. Prior to 1960-61 students failing post-graduate courses in colleges of education have been included among failures in similar courses at university departments of education.
- (3) Separate figures for students following one-year general and specialist courses in university departments of education are not available prior to 1960-61. For earlier years these students have been included with those following similar courses at colleges of education with the exception of 1954-55 when such students and those in specialist courses in colleges of education have been included under one-year general courses in colleges of education.
- (4) Including students who failed their degree course (10 men in 1959-60, 25 men and 7 women in 1962-63, 20 men and 8 women in 1963-64 and 34 men and 7 women in 1964-65.)

Table V(d)
Female students completing courses of initial training 1954-55 to 1964-65 (1) by type of training

	Academic years									
	1954-55	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65
<u>Women</u>										
University departments of education										
Post-graduate(2)										
PASSES	1,205	1,072	1,025	1,104	1,218	1,224	1,202	1,261	1,314	1,674
FAILURES	24	26	19	14	29	14	15	17	23	14
One-year general(3)						8	6	6	8	1
PASSES						-	-	-	-	-
FAILURES						35	33	30	46	46
One-year specialist(3)										
PASSES										
FAILURES										
Total										
PASSES	1,205	1,072	1,025	1,104	1,218	1,267	1,241	1,297	1,368	1,721
FAILURES	24	26	19	14	29	14	19	17	25	15
Colleges of education										
One-year										
Post-graduate(2)										
PASSES		103	129	173	167	165	165	151	229	271
FAILURES						4	10	10	8	12
General(3)										
PASSES	103	72	72	110	110	71	53	33	37	50
FAILURES	5	10	1	1	9	2	4	5	3	-
Specialist(3)										
PASSES		16	38	25	86	72	57	48	84	136
FAILURES		-	-	-	3	2	3	7	2	5
Two-year										
General										
PASSES	7,361	7,697	8,006	8,212	8,603	8,994	1,166	467	410	499
FAILURES	132	140	174	234	226	256	29	14	6	13
Housecraft										
PASSES	-	-	-	-	-	-	3	12	11	16
FAILURES	-	-	-	-	-	-	-	-	-	-
Three-year										
General										
PASSES	-	-	-	-	-	-	-	7,700	8,694	9,410
FAILURES	-	-	-	-	-	-	-	243	229	224
Housecraft										
PASSES	660	691	694	733	783	730	728	775	836	826
FAILURES	17	15	18	26	25	25	18	27	24	29
Physical education										
PASSES	270	295	293	295	325	303	344	390	382	413
FAILURES	2	8	6	10	9	18	12	19	11	24
Four-year combined degree and training										
PASSES	9	7	16	11	18	25	12	15(4)	22(4)	35(4)
FAILURES	-	-	-	-	-	-	-	1	1	1
Total										
PASSES	8,403	8,821	9,248	9,559	10,092	10,360	2,528	9,591	10,705	11,656
FAILURES	156	173	199	271	272	307	79	326	284	308
Art training centres										
PASSES	234	218	209	216	213	238	227	203	245	338
FAILURES	2	2	4	8	5	9	5	14	13	17
Colleges of education (technical)										
PASSES	67	88	85	75	90	96	90	101	122	154
FAILURES	2	2	1	-	2	-	-	2	1	-
All establishments										
PASSES	9,909	10,259	10,567	10,954	11,613	11,961	4,086	11,192	12,440	13,869
FAILURES	184	203	223	293	308	330	100	359	323	340

Notes (1), (2), (3), (4): see notes (1), (2), (3), (4) under table V(c).

Table V(e)
Degree subjects of graduates successfully completing professional training by sex and
broad categories of subjects for the academic years 1959-60 and 1964-65

Class of degree	Science subjects			Humanities(1)			Other subjects			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1964-65												
1st class honours	31	30	61	23	34	57	6	3	9	60	67	127
2nd class honours	339	249	588	840	887	1,727	91	95	186	1,270	1,231	2,501
Others	519	239	758	352	393	745	70	71	141	941	703	1,644
Total	889	518	1,407	1,215	1,314	2,529	167	169	336	2,271	2,001	4,272
1959-60												
1st class honours	12	13	25	38	24	62	4	2	6	54	39	93
2nd class honours	210	121	331	840	675	1,515	122	48	170	1,172	844	2,016
Others	347	138	485	337	345	682	93	37	130	777	520	1,297
	569	272	841	1,215	1,044	2,259	219	87	306	2,003	1,403	3,406

(1) Prior to 1964/1965 a small number of subjects that should have been included in Humanities were included with other subjects.

(B) General Secondary Education

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Table VII(a)

Number of full-time teachers employed in general secondary education
by sex in the years 1950, 1955, 1960, 1965

(January)

	1950(4)			1955(4)			1960			1965		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
<u>General Secondary</u>												
<u>Maintained</u>												
Modern and others(1)	26,513	21,845	48,358	32,487	26,696	59,183	47,166	39,301	86,467	57,317	40,155	97,472
Grammar	14,195	12,256	26,451	15,615	12,908	28,523	20,323	14,959	35,282	24,015	15,803	39,818
Total	40,708	34,101	74,809	48,102	39,604	87,706	67,489	54,260	121,749	81,332	55,958	137,290
<u>Non-Maintained(2)</u>												
Direct Grant Grammar	1,805	2,439	4,244	2,110	2,630	4,740	2,757	5,025	5,782	3,271	3,153	6,424
Others(3)	4,483	5,964	10,447	5,358	6,912	12,270	7,971	11,219	19,190	9,039	10,514	19,553
Total	6,288	8,403	14,691	7,468	9,542	17,010	10,728	16,244	24,972	12,310	13,667	25,977
Total General Secondary	46,996	42,504	89,500	55,570	49,146	104,716	78,217	70,504	146,721	93,642	69,625	163,267

(1) Includes bilateral, multilateral and comprehensive schools.

(2) For "Institute and technical" see Table XIII(a).

(3) Non-maintained secondary and primary-cum-secondary schools.

(4) Excludes independent schools not recognised as efficient.

Table VII(b)

Number of part-time teachers and full-time equivalent employed in general secondary education in the years 1950, 1955, 1960, 1965

(January)

	Number				Full-time equivalent		
	1950(1)	1955(1)	1960	1965	1955(1)	1960	1965
<u>Secondary</u>							
Maintained							
Modern and others (2)	1,561	2,201	6,484	12,961	929	3,242	6,420
Grammar	1,723	1,668	2,166	4,739	672	1,083	2,061
Total	3,284	3,869	8,650	17,700	1,601	4,325	8,481
Non maintained (3)							
Direct grant Grammar	523	528	647	1,093	194	240	350
Others (4)	2,678	3,252	7,771	8,157	1,168	1,530	2,784
Total	3,201	3,780	8,418	9,250	1,362	1,770	3,134
Total General Secondary	6,485	7,649	17,068	26,950	2,963	6,095	11,615

(1) Excludes independent schools not recognised as efficient.

(2) Includes bilateral, multilateral and comprehensive schools.

(3) The number of teachers in "institute and technical" are given in Table XIII(b).

(4) Non-maintained secondary and primary-cum-secondary schools.

Table VII(c)

Graduate and non-graduate full-time teachers by sex and by first stated degree subject (for the graduate teachers) in maintained general secondary schools in 1963 (at 31st March, 1963)

	Science subjects graduate teachers			Humanities graduate teachers			Other subjects graduate teachers			All subjects graduate teachers			Others			All teachers		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Secondary Modern																		
1st class honours(1)	44	9	53	144	66	210	24	9	33	212	84	296						
2nd class honours	366	123	489	2,654	1,384	4,038	205	131	336	3,225	1,638	4,863						
Others	1,278	387	1,665	3,140	1,678	4,818	531	264	795	4,949	2,329	7,278						
Total	1,688	519	2,207	5,938	3,128	9,066	760	404	1,164	8,386	4,051	12,437	33,982	27,762	61,744	42,368	31,813	74,1
Secondary Grammar																		
1st class honours(1)	731	294	1,025	973	497	1,470	49	31	80	1,753	822	2,575						
2nd class honours	2,908	1,388	4,296	7,019	5,014	12,033	314	219	533	10,211	6,621	16,862						
Others	3,422	1,600	5,022	2,584	1,956	4,540	418	273	691	6,424	3,829	10,253						
Total	7,061	3,282	10,343	10,576	7,467	18,043	781	523	1,304	18,418	11,272	29,690	4,395	4,354	8,749	22,813	15,626	38,4
Other Secondary(2)																		
1st class honours(1)	69	12	81	122	55	177	5	3	8	196	70	266						
2nd class honours	397	130	527	1,605	779	2,384	101	49	150	2,103	958	3,061						
Others	810	202	1,012	903	606	1,509	159	95	254	1,872	903	2,775						
Total	1,276	344	1,620	2,630	1,440	4,070	265	147	412	4,171	1,931	6,102	5,635	4,653	10,338	9,856	6,584	16,4
Total secondary schools																		
1st class honours	844	315	1,159	1,239	618	1,857	78	43	121	2,161	976	3,137						
2nd class honours	3,671	1,641	5,312	11,278	7,177	18,455	620	399	1,019	15,569	9,217	24,786						
Others	5,510	2,189	7,699	6,627	4,240	10,867	1,108	632	1,740	13,245	7,061	20,306						
Total	10,025	4,145	14,170	19,144	12,035	31,179	1,806	1,074	2,880	30,975	17,254	48,229	44,062	36,769	80,831	75,037	54,023	129,0
Divided service and Miscellaneous(3)	39	19	58	98	109	207	80	39	119	217	167	384	1,087	1,012	2,099	1,304	1,179	2,4

(1) Including graduates holding higher degrees where the class of the first degree is not known.

(2) Including bilateral, multilateral and comprehensive schools.

(3) Including teachers whose full-time service was divided between schools of different types and visiting and relief teachers in secondary schools; another group of teachers classified as "Miscellaneous" in "other maintained schools and establishments" was broken down in the following way: graduates: 1,037 (864 men; 173 women) others: 1,330 (998 men; 632 women) total: 2,367 (1,562 men; 805 women).

Table VII(d)

Graduate and non-graduate full-time teachers by sex in direct grant (1)
grammar schools in 1963 (at 31st March, 1963)

	Graduates			Others			All teachers		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Grammar schools	2,464	1,762	4,226	557	1,296	1,853	3,021	3,058	6,079

(1) For nursery, institution and technical schools see note (1) under table XIII(d).

Table IX

Enrolment and population of corresponding age in general secondary education
for the years 1950, 1955, 1960, 1965 and estimates for 1970, 1975, 1980

	Maintained Schools			Non Maintained Schools(2)			Total	Population of relevant age (11-17)
	Modern(1)	Grammar	Total	Direct grant Grammar	Others(3)	Total		
Past								
1950	1,120,226	503,008	1,623,234	82,614	252,038	334,652	1,957,886	-
1955	1,298,993	528,455	1,827,448	89,487	260,069	349,556	2,177,004	4,038,000
1960	1,948,364	672,881	2,621,245	108,663	310,031	418,694	3,039,939	4,888,000
1965	2,015,762	718,705	2,734,467	114,179	288,308	402,487	3,136,954	4,919,000
Estimates for the future(4)								
1970	-	-	2,912,400	-	-	364,000(5)	3,276,400(5)	4,712,000
1975	-	-	3,818,500	-	-	385,400(5)	4,203,900(5)	5,368,000
1980	-	-	4,373,600	-	-	401,500(5)	4,775,100(5)	6,051,000

(1) Includes bilateral, multilateral and comprehensive schools.

(2) For "Institute and technical" see note 1 table XV(c).

(3) Non-maintained secondary and primary-cum-secondary schools.

(4) Seniors under 15 and seniors 15 and over. The forecasts given for 1975 and 1980 for pupils under 15 and 15 and over refer to under 16 and 16 and over. This reflects the proposed raising of the school leaving age from 15 at present to 16 in 1971. This forecast is now being amended because raising the school leaving age to sixteen has been postponed for two years after 1971.

(5) Includes pupil data of maintained and non-maintained special schools (86.1 in 1970; 98.4 in 1975; 109.7 in 1980) which cannot be eliminated from this table and from table III.

(C) Technical Secondary Education

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Table XIII(a)

Number of full-time teachers employed in secondary technical education
by sex in the years 1950, 1955, 1960, 1965 (1)

	1950	1955	1960	1965
<u>Maintained</u>				
Men	2,683	3,254	3,669	3,264
Women	1,168	1,473	1,573	1,459
<u>Total</u>	3,851	4,727	5,242	4,723
<u>Non-Maintained</u>				
<u>Institute and Technical (2)</u>				
Men	90	91	89	101
Women	70	47	47	37
<u>Total</u>	160	138	136	138

(1) Estimates for the future are included in Table I(d) and cannot be isolated.

(2) Includes direct grant nursery.

Table XIII(b)

Number of part-time teachers and full-time equivalent employed in secondary technical education in the years 1950, 1955, 1960, 1965
(January)

	Number				Full-time equivalent		
	1950(1)	1955(1)	1960	1965	1955(1)	1960	1965
<u>Maintained</u> Technical	1,494	1,082	550	591	356	275	242
<u>Non-Maintained</u> (2) Institute and Technical	7	2	1	5	-	-	2

(1) Excludes independent schools not recognised as efficient.

(2) Includes direct grant nursery.

Table XIII(c)

Graduate and non-graduate full-time teachers (1)
in grant-aided establishments for further education (1955-1965) (2) by sex at 31st March

	1955	1960	1965(3)
Men			
Graduates	..	6,157	10,750
Non-graduates	..	9,503	16,250
Total	9,653	15,660	27,000
Women			
Graduates	..	683	1,250
Non-graduates	..	1,966	3,650
Total	1,748	2,649	4,900
Men and Women			
Graduates	..	6,840	12,000
Non-graduates	..	11,469	19,900
Total	11,401	18,309	31,900

(1) Figures for teachers in establishments of further education refer to all teachers; it is not possible to make an allocation according to the age-group of students. The under 18 students (all courses) represent 30.4 per cent of the students in further education in 1955; 31.3 per cent in 1960; 32.9 per cent in 1965; 33 per cent in 1970 - see table XV(d).

(2) Excluding Colleges of Advanced Technology and evening institutes, except for 1955 when the predecessors of Colleges of Advanced Technology are included.

(3) Estimated.

Table XIII(d)

Graduate and non-graduate full-time teachers by sex and by first stated degree subject (for the graduate teachers) in maintained secondary technical schools and in grant-aided further education establishments in 1965 (at 31st March, 1965)

	Science subjects graduate teachers			Humanities graduate teachers			Other subjects (graduate teachers)			All subjects (graduate teachers)			Others			All teachers		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Maintained: (1)																		
Secondary technical																		
1st class honours (2)	42	5	47	33	13	46	1	1	2	76	19	95						
2nd class honours	232	50	282	276	841	1117	30	12	42	827	338	1,165						
Others	495	89	584	429	183	612	62	26	88	966	298	1,264						
Total	769	144	913	742	912	1,654	93	39	132	1,889	655	2,544	780	1,579	2,359	3,468	1,435	4,903
Grant Aided Further (3)																		
Education establishments																		
1st class honours (2)	1,151	54	1,205	191	38	229	40	12	52	1,382	104	1,486						
2nd class honours	2,436	163	2,599	1,592	284	1,876	203	44	247	4,231	491	4,722						
Others	3,056	168	3,224	1,111	279	1,390	297	47	344	4,464	494	4,958						
Total	6,643	385	7,028	2,894	601	3,495	540	103	643	10,077	1,089	11,166	2,814	14,590	17,404	24,567	3,903	28,570

(1) Teachers in direct grant nursery, institution and technical schools were divided in:
73 Graduates (68 men; 5 women), 196 others (131 men; 65 women), total 269 (199 men; 70 women).

(2) Including Graduates holding higher degrees where the class of the first degree is not known.

(3) Figures for teachers in establishments of further education refer to all teachers, it is not possible to make an allocation according to the age group of students; these figures include establishments for further education and colleges of advanced technology (with one exception, the figures were maintained by Local Education Authorities prior to 1st April, 1962); the figures include 228 teachers whose full-time service was divided between establishments for further education and other types of schools or establishments. Some figures for 1955 and 1960 are given in the following table.

	Men		Women		Men and Women	
	1955(1)	1960(1)	1955(1)	1960(1)	1955(1)	1960(1)
Graduates						
Mathematics and science	1,850	2,989	188	271	2,038	3,260
Technology	1,111	1,873	8	20	1,149	1,893
Other subjects(2)	1,253	2,183	279	450	1,532	2,633
Total	4,214	7,045	475	741	4,719	7,786
Non-Graduates						
	5,520	9,839	1,316	2,015	6,836	11,854
Grand Total	9,734	16,884	1,791	2,756	11,555	19,640

Explanatory notes: (1) Including colleges of advanced technology and evening institutes and divided service; the figures for 1955 do not include teachers in farm institutes. The number of such teachers included in the year 1960 was:

	1960
Men: Graduates	170
non-Graduates	177
Women: Graduates	11
non-Graduates	59
Total:	427

(2) Including Graduates whose degree subjects were not known.

Table XIII (e)

Number of part-time teachers in grant-aided major establishments for further education (1)
by sex and by highest qualification of teacher in 1965 (at 31st March, 1965)

Highest qualification of teachers(2)											
	University degree(3)	Diploma in technology (3)	Teacher Training Certificate	Higher National diploma or certificate	Art qualification(4)	Membership of professional Institute	Ordinary National diploma or certificate	City and Guilds teaching certificate	Other	No qualification stated	Total
Men	11,331	603	6,871	6,955	1,199	9,003	1,164	1,126	5,686	4,932	48,870
Women	2,732	25	2,605	37	518	1,195	36	1,150	3,969	3,302	15,569
Total	14,063	628	9,476	6,992	1,717	10,198	1,200	2,276	9,655	8,234	64,439

(1) The part-time teachers included in this table are those who work either in the day or evening or both in grant-aided major establishments for further education. Colleges of advanced technology are not included. In addition it is estimated that there were about 26,000 part-time teachers (13,600 men and 12,400 women) working entirely in evening institutes.

(2) For the purpose of this table, the highest qualification is indicated by the order of the column headings.

(3) Of the part-time teachers with degrees or diplomas in Technology, 4,435 men and 1,096 women were also trained teachers.

(4) National Diploma in Design, Art Teachers' Diploma or Art Teachers' Certificate.

Table XIII(f)

Part-time teachers in grant-aided major establishments (1)
for further education by sex and subject group of
instruction given in 1965 (at 13th March, 1965)

	Subject group of instruction							
	Medicine dentistry and health	Engineering, technology and applied science	Pure science	Social administrative and business studies	Other professional and vocational subjects(2)	Arts other than languages	Music, drama and usual arts	Total
Men	421	16,035	6,793	7,007	4,275	1,430	2,313	48,870
Women	388	457	570	4,056	2,756	376	1,432	15,569
Total	809	16,492	7,363	11,063	7,031	1,806	3,745	64,439

(1) See Note (1) under Table XIII (e).

(2) Including 129 men and 140 women teaching educational subjects
and 296 men and 88 women teaching agricultural subjects.

Table XIV(a)

Full-time teachers by sex, by qualification and by age
groups in Grant-aided establishments for further education(1) in 1963

(At 31st March, 1963)

Age	Graduates				Non-graduates	All teachers
	Mathematics and science	Technology	Other subjects(2)	Total		
Men						
Under 25	118	33	119	270	199	469
25-29	749	342	506	1,597	1,294	2,891
30-34	976	502	634	2,112	2,588	4,700
35-39	726	654	621	2,001	2,950	4,951
40-44	430	332	438	1,200	2,682	3,882
45-49	386	210	436	1,032	1,937	2,969
50-54	336	130	350	816	1,538	2,354
55-59	299	166	219	684	879	1,563
60-64	119	111	96	326	477	803
65 and over	15	9	15	39	46	85
Total	4,154	2,489	3,434	10,077	14,590	24,667
Women						
Under 25	39	1	43	83	175	258
25-29	69	7	109	185	297	482
30-34	50	7	100	157	331	488
35-39	57	6	98	161	352	513
40-44	41	4	78	123	464	587
45-49	39	2	96	137	422	559
50-54	28	1	72	101	392	493
55-59	31	-	85	116	263	379
60-64	3	-	20	23	108	131
65 and over	-	-	3	3	10	13
Total	357	28	704	1,089	2,814	3,903
Men and women						
Under 25	157	34	162	353	374	727
25-29	818	349	615	1,782	1,591	3,373
30-34	1,026	509	734	2,269	2,919	5,188
35-39	783	660	719	2,162	3,202	5,464
40-44	471	336	516	1,323	3,146	4,469
45-49	425	212	532	1,169	2,359	3,528
50-54	364	131	422	917	1,930	2,847
55-59	330	166	304	800	1,342	2,142
60-64	122	111	116	349	585	934
65 and over	15	9	18	42	56	98
Total	4,511	2,517	4,138	11,166	17,404	28,570

(1) College of advanced technology, farm institutes, other major establishments, evening institutes and divided service.

(2) Including graduates whose degree subjects were not known.

Table XIV (b)

Number of part-time teachers in grant-aided major establishments for further education (1) by sex and age-group in 1965 (at 13th March, 1965)

Age at 31st December, 1965												
	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over	Total	
<u>Men</u> Part-time teachers who are also full-time teachers in other establishments(2) Other part-time teachers Total	477	3,148	3,983	3,876	3,083	2,618	1,922	893	615	68	20,683	
	1,301	4,765	4,856	4,676	3,978	3,017	2,217	1,441	1,005	931	28,187	
	1,778	7,913	8,839	8,552	7,061	5,635	4,139	2,334	1,620	999	48,870	
<u>Women</u> Part-time teachers who are also full-time teachers in other establishments(2) Other part-time teachers Total	275	546	449	516	359	369	201	230	94	28	3,067	
	751	1,078	1,231	2,035	1,883	1,709	1,375	1,146	808	486	12,502	
	1,026	1,624	1,680	2,551	2,242	2,078	1,576	1,376	902	514	15,569	
<u>Men and Women</u> Part-time teachers who are also full-time teachers in other establishments(2) Other part-time teachers Total	752	3,694	4,432	4,392	3,442	2,987	2,123	1,123	709	96	23,750	
	2,052	5,843	6,087	6,711	5,861	4,726	3,592	2,587	1,813	1,417	40,689	
	2,804	9,537	10,519	11,103	9,303	7,713	5,715	3,710	2,522	1,513	64,439	

(1) The part-time teachers included in this table are those who work either in the day or evening or both in grant aided major establishments for further education. Colleges of Advanced Technology are not included. In addition it is estimated that there were about 26,000 part-time teachers (13,600 men and 12,400 women) working entirely in evening institutes. Figures for teachers in establishments for further education refer to all teachers; it is not possible to make an allocation according to the age group of students.

(2) Maintained schools, other schools, further education establishments, colleges of education, universities (including colleges of advanced technology), other establishments.

Table XV(a)

Number of students under 18 in grant-aided establishments for further education (1)
and population of relevant age (1954/1955 - 1964/65)

(November - in thousands)

	Types of courses				All courses	Population of relevant age (15-17)
	Long and short full-time	Sandwich	Part-time day	Evening only		
Past:						
1954/1955	29.6	0.1	175.1	96.9	301.7	1,712.0
1959/1960	56.9	0.6	194.5	133.8	385.8	1,930.0
1964/1965	90.3	1.0	286.7	147.3	525.3	2,284.0
Estimates for the future						
1969/1970	116.9	1.1	519.2	48.9	686.1	1,964.0

(1) Excluding Colleges of Advanced Technology and Evening Institutes, except for 1954/1955 when the predecessors of Colleges of Advanced Technology are included.

Table XV(b)

Number of students under 18 in independent establishments (1)
for further education (1954/1955 - 1964/1965)

(in thousands)

	Types of courses			All courses	Population of relevant age (15-17)
	Full-time courses	Part-time courses	Evening only		
Past:					
1954/1955	3.0	0.3	3.3	3.3	1,712.0
1959/1960	3.5	1.0	4.5	4.5	1,930.0
1964/1965	3.6	0.5	4.1	4.1	2,284.0

(1) Excluding independent establishments not recognised as efficient.

Table XV(c)

Number of pupils in maintained (1) technical secondary schools and
population of corresponding age for the years 1950, 1955, 1960, 1965

(January)

Past (2)	Pupils	Population of relevant age (3)
1950	72,449	-
1955	87,366	4,038,000
1960	101,913	4,888,000
1965	84,587	4,919,000

- (1) In non-maintained sector, "institute and technical" (including direct grant nursery) possibly enrolled some pupils in technical education the total of which cannot be given : "institute and technical" enrolled a total of 3,155 pupils in 1950; 2,516 in 1955; 2,356 in 1960 and 2,071 in 1965.
- (2) Estimates for the future are not given individually for each type of education at primary and secondary level; there is a breakdown by age group for these two levels of education : see table IX.
- (3) 11-17.

Table XV(d)

Number of students under 18 and total number of students in establishments for further education (1) 1954/55-1964/65
(November)

	1954/55	1959/60	1964/65
(Thousands)			
<u>Grant aided establishments</u>			
Full-time courses			
Under 18	29.6	56.9	90.3
All students	53.8	94.5	161.6
Sandwich courses			
Under 18	0.1	0.6	1.0
All students	1.4	6.3	14.1
Part-time day courses			
Under 18	175.1	194.5	286.7
All students	361.2	446.6	644.7
Evening courses only			
Under 18	96.9	133.8	147.3
All students	576.1	683.4	776.2
All courses			
Under 18	301.7	385.8	525.3
All students	992.5	1,230.8	1,596.6
<u>Independent establishments (2)</u>			
Full-time			
Under 18	3.0	3.5	3.6
All students	5.3	7.6	7.9
Part-time			
Under 18	0.3	1.0	0.5
All students	1.1	1.9	1.2
All courses			
Under 18	3.3	4.5	4.1
All students	6.4	9.5	9.1

(1) Excluding Colleges of Advanced Technology and Evening Institutes, except for 1954/55 when the predecessors of Colleges of Advanced Technology are included.

(2) Excluding independent establishments not recognised as efficient.

Table XVI

Entry (1) and wastage (2) of full-time teachers by sex in grant-aided establishments for further education 1959/1960-1961/1962

Age at end of year	MEN										WOMEN									
	1959-60					1961-62					1959-60					1960-61 (3)				
	Entrants	Wastage	Wastage	Entrants	Wastage	Entrants	Wastage	Entrants	Wastage	Entrants	Entrants	Wastage	Wastage	Entrants	Entrants	Entrants	Wastage	Wastage	Entrants	Wastage
	Re-Entrants	per-centage (%)	per-centage (%)	Re-Entrants	per-centage (%)	Re-Entrants	per-centage (%)	Re-Entrants	per-centage (%)	Re-Entrants	Re-Entrants	per-centage (%)	per-centage (%)	Re-Entrants	Re-Entrants	Re-Entrants	per-centage (%)	per-centage (%)	Re-Entrants	per-centage (%)
Graduates																				
Under 25	50	-	5.3	131	1	176	5	30	1	42	42	9	38.0	43	10	30.3				
25-29	425	7.9	7.8	438	64	472	93	39	20	47	47	25	25.6	56	38	29.5				
30-34	293	5.2	5.5	256	84	230	89	25	22	36	26	10	20.0	38	15	13.8				
35-39	173	5.7	5.1	160	71	174	67	13	10	26	26	13	8.0	20	16	10.7				
40-44	178	5.0	4.9	181	42	186	23	16	6	9	9	2	2.4	10	3	3.3				
45-49	61	3.2	3.1	74	23	65	27	10	9	12	12	1	0.9	14	8	7.0				
50-59	24	2.0	2.2	41	23	43	23	10	9	20	20	5	5.9	10	12	12.5				
Total under 60	58	1.7	1.8	68	326	5	337	10	77	12.1	1	65	20.7	102	102	12.5				
60 and over	245	4.2	4.5	237	59	237	57	5	7	23.3	1	6	20.7	40	40	30.3				
Total	1,150	3.15	5.5	1,214	385	1,251	394	152	84	12.7	193	71	9.6	191	112	13.0				
Non-Graduates																				
Under 25	49	5	18.2	91	6	131	11	73	16	29.6	87	16	19.5	87	25	24.7				
25-29	349	17.2	7.0	330	43	459	32	60	36	19.6	76	42	20.3	73	53	22.1				
30-34	361	5.8	4.4	368	71	487	75	56	29	13.2	62	51	20.4	64	41	15.1				
35-39	294	3.6	3.6	306	60	373	76	62	26	10.0	52	30	11.4	67	23	9.0				
40-44	182	3.7	2.5	171	43	215	63	49	27	11.4	67	21	7.1	80	21	6.1				
45-49	146	2.7	2.4	122	38	153	26	38	15	4.5	57	25	7.6	45	21	5.7				
50-59	112	2.9	1.8	87	33	89	64	42	20	4.7	39	23	4.7	58	20	3.7				
Total under 60	1,112	5.9	3.1	1,086	294	1,153	347	152	167	10.0	6	208	10.9	58	204	9.6				
60 and over	54	17.5	14.9	55	55	15	73	4	25	25.8	6	29	29.6	5	22	21.4				
Total	1,504	34.6	3.5	1,486	349	1,932	420	404	192	10.9	446	237	11.8	479	226	10.2				
All Teachers																				
Under 25	99	5	13.5	222	7	307	16	103	17	25.4	129	25	23.6	130	35	26.1				
25-29	774	10.4	7.5	768	107	921	125	99	56	21.4	123	67	22.0	129	91	24.7				
30-34	654	4.3	5.0	624	155	717	143	81	51	15.5	98	61	16.6	102	56	14.7				
35-39	473	4.1	3.7	466	131	547	143	75	36	9.9	78	43	11.4	87	39	9.6				
40-44	260	3.5	3.3	252	85	321	86	65	33	10.6	76	23	6.1	90	24	5.5				
45-49	207	2.8	2.5	196	61	208	53	75	22	5.6	69	22	5.9	59	29	8.0				
50-59	170	2.4	2.4	155	74	132	97	52	29	5.0	59	28	4.2	68	32	4.3				
Total under 60	537	7.8	3.8	620	620	132	684	52	244	10.6	7	273	10.4	58	306	10.4				
60 and over	17	21.3	17.6	114	114	20	130	6	32	25.2	7	35	27.6	5	32	23.5				
Total	2,654	661	4.5	2,700	734	3,183	814	556	276	11.4	639	308	11.2	670	338	10.9				

(1) Including transfers from other grant-aided schools and establishments. Teachers who entered and left during the same year are excluded.

(2) Farm institutes are included for years 1960-61 and 1961-62.

(3) Revised figures.

(4) Expressed as a percentage of the number in the age group in service at the beginning of the year.

PART TWO

SCOTLAND

CHAPTER VII

THE EDUCATIONAL SYSTEM IN SCOTLAND

A. Schools

Schools in Scotland fall into three groups :

- (a) public schools under the management of thirty-five education authorities and financed partly from Government grants and partly from local rates;
- (b) grant-aided schools conducted by bodies of managers who receive grants direct from the Scottish Education Department; and
- (c) independent schools conducted by the proprietors without aid from public funds but, like the others, subject to inspection.

Responsibility for the provision of education rests with the education authorities who are required to secure that adequate and efficient provision is made throughout their areas for primary and secondary education. Primary and secondary education in schools under the management of education authorities must be available without payment of fees, but an authority may charge fees in a limited number of schools where this can be done without prejudice to the adequate provision of free education for all who want it. In January 1968 there were 2,905 education authority schools (872,607 pupils) of which twenty-seven were fee-paying (17,744 pupils).

(1) Primary education

The primary school course usually lasts for seven years, covering the ages of five to twelve. Primary schools usually take both boys and girls, and normally include infant classes for children under seven years of age. Important developments have recently been taking place both in teaching methods and in the subjects taught. Class teaching has gradually been giving way to methods which aim at grouping together within a class children of similar capacity so that all can progress at the pace which is appropriate to them.

In January 1968 there were 2,613 primary schools, with 597,247 pupils, under the management of education authorities. 849 had over 300 pupils, 572 had between 100 and 300 pupils; of the remaining 1,192, 928 were single-teacher or two-teacher schools.

(2) Secondary education

There are 633 secondary schools or departments with a total of 275,360 pupils. The schools vary in size from small country schools with less than 25 pupils to city schools which cater for 1,200 or more pupils. Most schools take both boys and girls, but in the cities there are several one-sex schools, dating in their present form usually from last century.

All pupils transfer from the primary course to secondary courses at about the age of 12. All education authorities have begun the process of reorganisation of secondary education on comprehensive lines and good progress has been made in the majority of areas, particularly those which are predominantly rural. When this process is completed there will be no preselection of pupils for particular courses. Until such time as reorganisation has been completed, selection procedures will be retained in some areas. Selection will be based mainly on primary school teachers' assessments and verbal reasoning tests but the abilities and interests of pupils and the wishes of their parents will also be taken into account.

The secondary course lasts from three to six years. Broadly there are three types of courses :

- (a) five- and six-year courses leading to the Scottish Certificate of Education examination on the higher grade;
- (b) four-year courses leading to the Scottish Certificate of Education examination on the ordinary grade;
- (c) three-year (and occasionally four-year) courses not leading to the Scottish Certificate of Education examination, but providing a general education.

It is increasingly common for secondary schools to provide all these types of courses, so that all the pupils in an area go to the same school. In some areas however certificate and non-certificate courses are found in separate schools. In others, pupils aiming at certificate presentation are transferred to another school after the second, third or fourth year.

As the policy of reorganisation along comprehensive lines is more widely implemented these arrangements are being progressively modified. The first two years of the secondary course will normally be a period of orientation during which pupils will be able to explore a variety of subjects to find out where their particular aptitudes, interests and abilities lie. As the pupils reveal their potentialities they will be guided gradually towards particular courses most suited to them.

The content of any particular course is decided by the education authority in consultation with the teachers. In the first two years courses usually include English, history, geography, mathematics (at least in the form of arithmetic), science, art, music and physical education together with technical subjects for boys and home economics for girls. An increasing number of pupils are embarking on a foreign language during these years. Other pupils sometimes add an extra subject most usually a second language.

At the end of the second year a decision is taken whether pupils will aim at presentation in one or more subjects in the Scottish Certificate of Education examinations or will complete a course of general education not leading to certificate presentation. It is becoming increasingly common with the latter to attempt to make their courses more interesting and relevant by the introduction of a vocational element. So far as pupils aiming mainly at certificate presentation are concerned, some choice of subjects has to be made at this stage but the general aim has been and still is to maintain a balanced curriculum throughout the courses.

The Scottish Certificate of Education examination is conducted by the Scottish Certificate of Education Examination Board. There are two grades in the examination - Ordinary and Higher. The Ordinary grade is generally taken at age 16 and the Higher grade taken one year later at 17. In 1968 the Board introduced a Certificate of Sixth Year Studies which is designed to give direction and purpose to sixth year work by encouraging pupils who have completed their main subjects at Higher grade to engage in the study in depth of a particular subject or subjects.

B. Grant-aided schools

Twenty-nine of the 47 grant-aided schools are secondary schools which are under voluntary management but are similar to education authority schools as regards organisation and courses. Conditions of grant include requirements that the Schools (Scotland) Code (which lays down regulations relating to the conduct of schools) must be observed and that teachers must be paid on the same basis as teachers in education authority schools, i.e. in accordance with the Scottish Teachers' Salaries Memorandum. Twenty-eight of the schools have primary and secondary departments and one is purely a secondary school; with two exceptions they are fee-paying. The aggregate of the rolls of the schools is 19,500 and the managers employ just under 1,200 teachers.

The schools are broadly similar to the direct grant grammar schools in England and Wales. However, unlike the direct grant schools, the Scottish grant-aided schools are not required by statute to provide any places for pupils nominated by education authorities or to admit representatives of education authorities to their bodies of Managers.

The extent of co-operation between grant-aided schools and the education authorities in whose areas they are situated varies from place to place. In certain areas co-operation is close and arrangements have been made for one or two grant-aided schools to participate on a limited scale in an education authority's comprehensive system. In a few areas denominational schools provide secondary education for substantial numbers of pupils for whom the authority would otherwise have to make provision; and in several areas grant-aided schools provide places for very small minorities of pupils nominated by the authority.

C. Independent schools

In 1967 there were 134 independent (or private) schools in Scotland with a total roll of 18,176. These schools, like the corresponding schools in England and Wales, are not grant-aided in any way by the Government or by education authorities, but must be registered by the Scottish Education Department. If any serious defects as regards premises, instruction or staffing are found, and are not remedied, the school may be removed from the register. It is an offence to conduct an unregistered school. The independent schools in Scotland form a much smaller part of the total educational provision than in England and Wales (less than 2 per cent of pupils in Scotland attend independent schools, compared with over 6 per cent in England and Wales). They vary very much in size and status: for example, ten are the equivalent of English "public schools" (usually those in membership of the Headmasters' Conference, the Governing Bodies Association or Governing Bodies of Girls' Schools Association) and some 12 secondary schools are broadly comparable to education authority schools in organisation, courses, educational facilities and salaries and qualifications of teaching staff. There is in Scotland no system, as there is in England and Wales, of classification of some independent schools as "recognised as efficient".

D. Special Schools

Special educational treatment is provided for children who are deaf, partially deaf, blind, partially sighted, physically handicapped, maladjusted, mentally handicapped, epileptic and for pupils with speech defects. Attendance is compulsory to age 16. There are 15 residential special schools, 73 special day schools with 57 special classes attached to ordinary schools, 60 junior occupational centres and 27 out of 35 authorities have child guidance services.

E. Further Education

There are about 100 further education centres managed by education authorities providing day and evening courses, mainly of a vocational and technical nature and for students who have left school after not more than three or four years of secondary education. The more advanced courses in these centres lead to National Certificates (Ordinary and Higher) and Diplomas in technological or commercial specialisms.

Thirteen central institutions managed by independent governing bodies and receiving direct grant from the Department (or in the case of the three agricultural colleges from the Department of Agriculture and Fisheries for Scotland) offer full-time courses in the arts, sciences and technology for students who have completed at least five years of secondary education. The courses are normally of degree standard and lead to the award of college Diplomas or, in some cases, of degrees under the auspices of the Council for National Academic Awards.

At October 1965 there were 4,474 young men and 3,698 young women aged 15 and under 18 following full-time or sandwich courses at further education centres and central institutions. Numbers in the same age group released from employment to attend courses on a day- or block-release basis were 18,841 and 3,828 respectively. These numbers represented 23.0 per cent and 4.4 per cent of the insured population under the age of 18 at June 1965.

F. Role of the education authorities

Local administration rests with 35 education authorities - four cities and 31 county councils. The education authorities have the duty of securing that adequate and efficient provision is made throughout their areas for all forms of primary (including nursery school), secondary and further education appropriate to the age, ability and aptitude of pupils. Each local authority is required to establish an education committee to exercise its functions relating to education. Each education committee must comprise a majority of elected Council members and must contain a number of persons with experience in education and knowledge of local conditions, including at least two interested in the promotion of religious instruction, nominated by representatives of the churches. The duties of education authorities include appointing and paying teachers, maintaining prescribed standards in school premises; ensuring that parents carry out the duties placed on them regarding attendance of pupils at school; arranging that free medical attention is available to pupils; providing school milk and meals; providing free transport for or paying reasonable travelling expenses to pupils where appropriate; appointing a director of education and appropriate staff and accounting for monies received and spent.

The cost is met partly from the Exchequer and partly from local authority sources such as rates (a local property tax).

G. Role of Scottish Education Department

The Minister responsible for public education in Scotland, apart from the universities, is the Secretary of State for Scotland. He is assisted by a Minister of State and three Parliamentary Under Secretaries of State, one of whom is concerned with education. Under the Secretary of State's central administration is the responsibility of the Scottish Education Department who are also responsible for the general oversight of the national system of public education. Among the Department's major concerns are the provision of additional school accommodation required as a result of increased numbers of children in school, the increase in the supply of teachers necessary, alteration of the school curriculum to meet

changing needs, the reorganisation of secondary education on comprehensive lines, the development of further education and the general oversight of educational building programmes of education authorities and governing bodies of central institutions and colleges of education.

The Consultative Committee on the Curriculum was set up in November 1965 to improve arrangements for consultation between those concerned with developing and with maintaining a continuous review of the curriculum. The Committee maintains close liaison with the Scottish Certificate of Education Examination Board and the Scottish Council for Research in Education, some of whose members are included in its own membership.

The Liaison Committee on Educational Matters was set up in 1962 and consists of 14 members, the majority of whom are appointed by the main teachers organisations and the Association of Directors of Education. The remainder, including the Chairman, are officers of the Department. Its main function is to act as liaison body between those organisations and the Secretary of State in which matters of general importance to schools can be discussed.

H. Role of the Inspectorate

H.M. Inspectors of Schools play an important part in the work of the Department. They visit schools and report on premises, staffing and standards of work and offer guidance where necessary on curricula and methods of teaching. They also play an important role in securing liaison between the Department, the education authorities and many other agencies in the educational field. For the purposes of inspection in the field of primary and secondary education the country is divided into three divisions, each of which is in the charge of one of H.M. Chief Inspectors; these divisions in turn are sub-divided into districts, each of which is in the charge of one of H.M. Inspectors. The inspection of schools in any particular district is carried out by the district inspector with the assistance of other inspectors. In addition, one of H.M. Chief Inspectors has a responsibility for the development of primary education and another for the development of secondary education; in each case their responsibility extends over the country as a whole. Each of these chief inspectors is assisted by a small specialist staff of inspectors, who act in liaison with the inspectors in the districts. Further education is the responsibility of a specialist staff under two chief inspectors. The inspectorate as a whole works under the co-ordinating control of H.M. Senior Chief Inspector. At present the inspectorate, comprising both men and women, numbers 111.

CHAPTER VIII

THE TRAINING OF TEACHERS IN SCOTLAND

A. General

On 1st April 1968, registration with the General Teaching Council for Scotland replaced certification by the Secretary of State as the mark of recognition of the qualified teacher and, from that date, the Council replaced the Secretary of State as the controlling authority for the teaching profession.

From 1st April 1968, only teachers who are registered or conditionally registered with the General Teaching Council are eligible for permanent appointments in primary and secondary schools and entitled to payment on prescribed national scales. Teachers are entitled to register with the Council if they hold a Teaching Qualification (Primary Education), a Teaching Qualification (Secondary Education) or a Teaching Qualification (Further Education) awarded by a college of education. Teachers trained outside Scotland may apply to the Council for exceptional admission to the Register.

A conditionally registered teacher is one whose qualifications fall short of the requirements for full registration but who is regarded by the Council as capable of giving useful service in the schools while remedying his deficiencies. Conditional registration will be for a limited period, normally not exceeding six months, and during this period the candidate's qualification and experience will be reviewed by the Council which will decide on the further education and training that the candidate should be required to undertake in order to secure full registration. A candidate who is unable to satisfy these requirements within the period prescribed by the Council will have his conditional registration withdrawn.

Under the Council most of the probation requirements which obtained when the Secretary of State was handling certification will remain unaltered. The normal maximum period of probation before a newly qualified teacher may transfer from provisional to final registration will be two years. Final registration will be subject to satisfactory teaching performance as attested by the reports from headteachers or principals. Unsatisfactory performance may lead to the withdrawal of provisional registration or to an extension of the probationary period. The Council, however, in deciding whether a teacher has satisfactorily completed his period of probation, will rely essentially on the reports of headteachers or principals. The Secretary of State draws also on the advice of H.M. Inspectors of Schools.

B. Teaching Qualification (Primary Education)

This qualifies the holder to teach general subjects in primary schools. There are three methods of obtaining it :

- (a) Three-year course at a college of education. Minimum entry requirements for people under 23 are normally two Higher grade passes (including English) and four Ordinary grade passes (including arithmetic or mathematics) in the Scottish Certificate of Education. A reduction in these entry requirements is made for those who are aged

23 or over when they start the course. During the training period all students follow a basic course and in addition, with a view to furthering interest and skill in teaching a particular activity and improving the student's own education at an advanced level, each student studies in greater depth at least one subject covered in the basic course.

- (b) University Degree followed by a one-session (October to June) course at a college of education.
- (c) Degree of Bachelor of Education - a four-year course at a college of education in which academic studies for the university degree and professional training proceed concurrently. These courses are provided at Aberdeen, Dundee, Moray House and Jordanhill Colleges of Education. They are provided jointly by the colleges and by the neighbouring universities and, in addition to the degree award, lead to a Teaching Qualification (Primary Education).

C. Teaching Qualification (Secondary Education)

This qualifies the holder to teach a particular subject or subjects in secondary schools, but is also valid for teaching in primary schools.

- (a) Candidates for a Teaching Qualification (Secondary Education) in an academic subject (such as English, history, science and mathematics) must obtain an appropriate university degree (or central institution associateship, or other equivalent qualification) which includes at least two graduating courses in a subject taught in schools and also take a one-session (October to June) course of professional training at a college of education. Prior to 1st April 1965, it was possible for graduates to follow an adjusted one-year course leading to a Teacher's General Certificate and to an Article 39 Endorsement, i.e. in current terms to a Teaching Qualification (Primary Education) and a Teaching Qualification (Secondary Education) respectively. In terms of the Certification Regulations introduced on 1st April 1965, and of the Registration Regulations introduced on 1st April 1968, it is no longer possible for graduates to take this type of adjusted course. A graduate qualifying as a primary teacher after a one-session course would require subsequently to take a shortened in-service course in order to qualify as a secondary teacher.
- (b) In the case of the degree of B. Ed. (obtainable at the Aberdeen, Dundee, Moray House and Jordanhill College of Education) the teacher training is included in the course. In the case of Moray House and Dundee it is possible to obtain simultaneously both a Teaching Qualification (Primary Education) and a Teaching Qualification (Secondary Education).
- (c) Candidates for a Teaching Qualification (Secondary Education) in a practical or aesthetic subject can take any of a wide variety of courses at either a college of education or at an institute of higher education followed by a session at a college of education, dependent on the qualification sought.

If the degree or equivalent qualification does not include a sufficient study of a school subject, it is sometimes possible to reach the standard required by taking a supplementary course at the college of education concurrently with professional training.

D. Teaching Qualification (Further Education)

Although possession of a Teaching Qualification is not essential for employment in further education, training is desirable, and in further education centres carries with it an addition of £85 per annum. Training is open to people with acceptable technical or commercial qualifications who have experience in industry or commerce. The minimum technical qualification may be broadly stated as a Higher National Certificate or a Full Technological Certificate of the City and Guilds of London Institute. The course is centralised meantime at Jordanhill College of Education, Glasgow, and consists of two months' full-time study at the College followed by one year of supervised teaching employment in further education and a further two months' full-time study at the College. It is open only to teachers who hold or have been offered an appointment in a further education centre and there is a Central Register to help suitably qualified applicants to obtain an appointment. Since the introduction of the Central Register, education authorities appoint teachers without teaching qualifications only where they hold the necessary technical and general education qualifications for subsequent admission to the course of further education training at Jordanhill.

Students taking the "sandwich" course at Jordanhill are seconded by their employing authorities on full salary. It is expected that in due course all teachers in further education centres will undertake teacher training. The position in the central institution (1) field will however probably remain unaltered. It is accepted that, given the level of work undertaken and the age groups of the students, there is not the same educational need for teachers in central institutions to undergo professional training.

While central institutions and further education centres may both undertake work up to degree level the bulk of the high level work is done in the former. Both establishments recruit staff with a wide range of qualifications extending from honours degrees to craft level. The central institutions with their relatively higher grades of work naturally tend to recruit a higher proportion than the further education centres of teachers with advanced qualifications.

(1) Please see Chapter I, Section E.

ANNEX

QUANTITATIVE DATA ON TEACHERS

Tentative tables of the teaching trends in Scotland
at primary and secondary level from
1950 to 1975

Note : Each proposed table is accompanied by a certain number of comments, certain of them try to explain what is needed, the others come from the different sources.

Table 1

Number of teachers employed in primary education, by qualifications and by sex from 1950 to 1966

Qualifications	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
<u>Certificated (*)</u>	17,235	14,441	19,154	16,025	19,121	15,953	19,364	16,603
of which graduates			6,517	4,232	5,978	3,774	5,604	3,434
" " non-graduates			12,637	11,793	13,143	12,179	13,760	13,169
<u>Uncertificated (*)</u>		n.a.	574	486	843	701	1,169	1,016
of which graduates			56	36	70	44	49	32
" " non-graduates			518	450	773	657	1,120	984
<u>Total public and grant-aided schools</u>	17,235(1)	14,441(1)	19,728	16,511	19,964	16,654	20,533	17,619
<u>Teachers in other primary schools</u>								
of which graduates	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
" " non-graduates	(numbers small)	(do.)	(do.)	(do.)	(do.)	(do.)	(do.)	(do.)
<u>Grand total</u>								

(*) Certification replaced by registration from 1st April 1968.

MF = total of male and female teachers.

F = female teachers.

Source : 1950, 1955, 1960 : UNESCO : "World Survey of Education", Vol. II, III and IV. Supply of Teachers in Scotland.

(1) We do not know if these UNESCO figures (World Survey of Education Vol. II) include non-aided private schools or not.

Table 2

Enrolments and population of corresponding age
in primary education from 1950 to 1975

	Enrolments			Population of corresponding age (5-11)
	(Excluding Special) Public and Grant-aided schools	Independent Non aided private	Total	
1950/51	514,276 (1)	10,956	525,232 (a)	
1955/56	576,916 (2)	11,075	587,991 (a)	616,000
1960/61	558,231 (3) (a)	7,928 (a)	566,159 (a)	590,600
1965/66	582,786 (4)	8,416	591,202	615,900
1970/71	616,620 (b)	9,080	625,700	647,100
1975/76	600,600 (b)	8,870	609,470	630,900

(1) excludes 14,178 2-4 year olds and 17,882 12+ year olds in Primary Education

(2) " 3,892 2-4 year olds and 21,654 " " " " " "

(3) " 2,370 2-4 year olds and 22,786 " " " " " "

(4) " 1,491 2-4 year olds and 16,909 " " " " " "

Source : (a) UNESCO : "World Survey of Education" - Vol. II, III and IV.

(b) Supply of Teachers in Scotland (fourth report).

Table 3(a)

Intake to training courses and teachers awarded teacher's certificate
by primary and secondary 1950-1966

New entrants	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
<u>Primary certificate</u>								
Graduates								
Non-graduates							142	120
Total							2,457	2,457
<u>Secondary certificate</u>							2,599	2,577
Graduates								
Non-graduates							962	492
Total							760	463
B. Ed. (2)							1,722	955
All entrants	1,972	1,209	1,910	1,426	2,728	1,989	94	66
Certificated teachers							4,415	3,598
<u>Primary certificate</u>								
Graduates							133	114
Non-graduates							1,707	1,707
Total							1,840	1,821
<u>Secondary certificate</u>								
Graduates								
Non-Graduates							897	465
Total							647	408
All teachers	2,193	1,432	1,714	1,248	2,339	1,645	1,544	873
							3,384	2,694

(1) The form of certification was changed in 1965 and comparable figures are not available in detail for earlier years. The sheet following (headed 3(a)(i)) gives this total input to and output from colleges split between the graduate and non-graduate elements.

(2) Courses lead to primary certificate or to secondary certificate as well as to degree of B.Ed. Students in B.Ed. courses are counted only under this heading.

Source : 1965/66 : Education in Scotland in 1966. Scottish Education Department.

Table 3(a)(1)

(a) Intake to training courses and (b) teachers awarded teacher's certificate
by graduates and non-graduates

	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
(a)								
Graduates	878	343	650	342	920	438	1,198	678
Non-graduates	1,094	866	1,260	1,084	1,808	1,551	3,217	2,920
Total	1,972	1,209	1,910	1,426	2,728	1,989	4,415	3,598
(b)								
Graduates	890	324	626	337	892	422	1,030	579
Non-graduates	1,303	1,108	1,088	911	1,447	1,223	2,354	2,115
Total	2,193	1,432	1,714	1,248	2,339	1,645	3,384	2,694

Table 3(b)

Graduate teachers awarded teacher's certificate (secondary education)
of academic subjects 1950-1966

Certificated teachers	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
Classics							27	12
Economics							14	3
English							241	158
Geography							74	37
History							90	44
Mathematics							168	69
Modern Languages							116	87
Science							133	43
Other							17	7
Total							880	460

(1) Not available

Source : 1965/66 Education in Scotland in 1966. Scottish Education Department.

Comment : This table is a breakdown of the data on graduates given in table 3(a) and must not be added to that table.

(1) The terminology teacher's certificate (secondary education) came into being in 1965, and it is not possible, in accurate terms, to convert the early years to this basis.

Table 3(c)

Intake to training courses and teachers awarded teacher's certificate
(secondary education) of practical and aesthetic subjects, 1950-1966

	1950/51			1955/56			1960/61			1965/66		
	MF	F		MF	F		MF	F		MF	F	
<u>New entrants</u>												
Art							93	50		134	64	
Commerce							31	22		53	42	
Engineering and technical							100	-		123	-	
Homecraft							139	139		181	181	
Music			n.a.				72	49		66	43	
Physical Education							117	76		182	117	
Other practical or aesthetic subjects												
Total	557	331		450	268		608	349		776	469	
<u>Certificated teachers</u>												
Art	T.	G.	T.	G.	T.	G.	T.	G.	T.	G.	T.	G.
Commerce							91	49		128	63	2
Engineering and technical							38	22		59	1	1
Homecraft							88	-		112	-	-
Music							129	129		178	178	-
Physical Education							68	47		56	38	2
Other practical or aesthetic subjects							85	61		117	80	-
Total	568	9	406	4	446	11	554	321	6	664	413	5

T = Total

G = Graduates

Source : 1965/66 : Education in Scotland in 1966. Scottish Education Department.

Comment : This table is a breakdown of table 3(a).

Table 3(d)

Intake to training courses leading to teacher's certificate (secondary education)
of practical and aesthetic subjects by graduates and non-graduates

	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
Graduates	8	4	12	6	6	2	16	6
Non-graduates	549	327	438	262	602	347	760	463
Total	557	331	450	268	608	349	776	469

Table 4

Teachers employed in general secondary education by qualification and
by sex from 1950 to 1966

Qualifications	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
<u>Certificated teachers (1)</u>								
of which graduates			14,542	6,386	16,477	7,324	18,014	7,362
of which non-graduates			8,895	3,529	10,204	4,155	11,173	4,317
			5,647	2,857	6,273	3,169	6,841	3,045
<u>Non-certificated teachers</u>								
of which graduates		n.a.	521	281	1,196	625	1,537	779
of which non-graduates			70	32	183	74	331	128
			451	249	1,013	551	1,206	651
Total public and grant-aided schools	(2) 12,643	(2) 5,547	15,063	6,667	17,573	7,949	19,551	8,141
<u>Teachers in other secondary schools</u>								
of which graduates		n.a.		n.a.		n.a.		n.a.
of which non-graduates		(do.)		(do.)		(do.)		(do.)
All general secondary								

Sources : 1950, 1955, 1960 : UNESCO : "World Survey of Education", vol. II, III and IV.

Notes : (1) Certification replaced by registration on 1st April 1968.

(2) We do not know if these UNESCO figures (World Survey of Education Vol. II) include non-aided private schools or not.

Table 5

Enrolments and population of corresponding age in general
secondary education from 1950 to 1975

	Enrolments			Population of corresponding age (12 - 18)
	Public and grant- aided schools	Non-aided private schools	Total	
1950/51	232,897	6,714	239,611	
1955/56	232,112	9,319	241,431	461,700
1960/61	287,657	8,100	295,757	584,800
1965/66	283,592	8,421	292,013	588,600
1970/71	324,430	8,380	332,810	566,200
1975/76	399,550	9,220	408,770	616,300

Source : See under table 1.

Table 6

Full-time teachers in further education (central institutions and education authority further education establishments) by qualification and by sex

	1950/51		1955/56		1960/61 (1)		1965/66	
	MF	F	MF	F	MF	F	MF	F
<u>Central institutions</u>								
of which :								
certificated								
other (2)								
<u>Further education</u>								
of which :								
certificated								
other (2)								
<u>Grand total</u>								
of which :								
certificated								
other (2)								

Comment : (1) UNESCO data (World Survey of Education, Vol. IV) Central institutions : MF : 370, F : 150, further education centres MF : 1,122 F : 141 (full-time teachers); grand total : MF : 1,992 F : 291, are slightly different from the fourth report on "Supply of Teachers in Scotland".

(2) Mainly from industry and commerce.

Table 7

Enrolments in further education centres 1950-1966

	1950/51	1955/56	1960/61	1965/66
<u>Further education centres</u>				
Full-time students of which under 18	3,337 not available	4,363 3,819	5,559 5,069	11,597 8,513
Part-time students of which under 18	267,047 not available	212,997 42,208	239,965 72,556	291,713 (1) 52,170
<u>Central institutions</u>				
Full-time students of which under 18	6,065 (2) 1,564	5,605 (2) 1,101	7,184 (2) 1,019	6,112 654
Part-time students of which under 18	26,155 5,261	22,867 3,197	21,474 2,575	6,886 (1) 689
<u>Total further education</u>				
Full-time students of which under 18	9,402 -	9,968 4,920	12,743 6,088	17,709 9,167
Part-time students of which under 18	293,202 -	235,864 45,405	261,439 75,131	298,599 (1) 52,859

Source : 1950, 1960 : "World Study of Education," Vol. II, III and IV UNESCO.
Education in Scotland in 1966. Scottish Education Department, 1965.

Comment : (1) Day and block-release students and other part-time (mainly evening).

(2) Returns for 3 former central institutions included in totals : they subsequently received university status.

Table 8

Education Authorities' estimates of the numbers of additional teachers needed to fill vacancies, eliminate oversize classes and replace uncertificated teachers and teachers aged over 70

Year	Primary	Secondary	Total
1950-51	n.a.	n.a.	2,900
1955-56	1,771	1,510	3,281
1960-61	1,422	2,250	3,672
1965-66	1,512	2,210	3,722

Table 8a

Breakdown of the shortage of secondary teachers
in 1965-66 by subjects

	<u>1965-66</u>
<u>Academic subjects</u>	
Mathematics and science	448
English, history and geography	225
Modern languages	141
Classics	3
Other	2
Total academic	819
<u>Practical and aesthetic subjects</u>	
Art	192
Commerce	145
Homecraft	365
Music	297
Physical education :	
Men	85
Women	118
Speech and drama	39
Technical	110
Other	40
Total practical and aesthetic	1,391
Grand Total	2,210

N.B. Statistics of uncertificated teachers are not an accurate indication of shortage as some education authorities have preferred to resort to other methods to combat shortage (e.g. part-time or "shift" education) rather than employ uncertificated teachers.

PART THREE

NORTHERN IRELAND

CHAPTER IX

THE EDUCATIONAL SYSTEM OF NORTHERN IRELAND

A. Structure

The structure is broadly similar to that in England and Wales - three stages, primary, secondary and further (including higher) education with compulsory schooling from 5 to 15 (to be raised to 16 from 1972/73) and transfer from primary to secondary school between normally the age of 11 and 12. Further education includes technical colleges, in which some secondary courses are also available while higher education includes the colleges of education and university departments of education which train teachers. Special schools provide special educational treatment for handicapped pupils.

B. School Management

Schools designated "county schools" are managed by local education authorities and are virtually wholly financed from public funds. Those designated "voluntary schools" are under voluntary managers and receive substantial assistance from public funds. A new category of voluntary schools, "maintained schools", introduced under recent legislation, will be managed by statutory committees representative of the former managers and the local education authority and will receive higher grants. Voluntary grammar schools are sub-divided into groups 'A' and 'B', operating under different grants systems in relation to new buildings and equipment. Group A grammar schools which accept public representation on their Boards of Governors will under the recent legislation be eligible for increased grant on capital expenditure but will not be called maintained schools. Only a small number of independent schools are in operation and the number of pupils in them is insignificant.

C. Fees

No fees are payable in primary schools or in secondary (intermediate) schools, (which are mainly comparable with secondary modern schools although a few are comprehensive schools). Grammar schools, however, charge fees, but these are met for the most part by scholarships from the local education authorities. Some grammar schools provide primary education in preparatory departments for which the parents concerned pay fees.

D. Role of Ministry and Local Education Authorities

It is the responsibility of the Ministry of Education to superintend the development of the public system of education and the Minister of Education is responsible to the Parliament of Northern Ireland for the working of his department and the policies it pursues. The Ministry's major concerns include the review of the planning by local

education authorities of school provision in their areas, approval of individual building projects and prescribing standards for school premises. It regulates the staffing of schools and teachers' qualifications. It pays grants to local education authorities and voluntary bodies and generally exercises oversight of the various services. The Ministry's Inspectors report on all matters relating to schools and institutions of further education, offer guidance on organisation, curriculum and teaching methods and have duties in connection with training colleges, teachers' courses and examinations.

Responsibility for the local administration of the education services rests on the local education authorities, which are the councils of the six counties in Northern Ireland and of the two county boroughs (Belfasts and Londonberry). Each local education authority discharges its functions through an education committee to which are delegated all the authority's powers under the Education Acts with the exception of the raising of money by rates or loan, the general control of expenditure and the acquisition, holding and disposal of land.

Expenditure on education from public funds is shared by central and local funds, that is, between the Northern Ireland government exchequer and local rates.

E. Primary Schools

In January, 1968, there were 1,332 primary schools with approximately 199,000 pupils. Over 800 schools had enrolments of 100 or less pupils, approximately 600 of these being single-teacher or two-teacher schools. All but a few schools take the full age range from 5 to 11 and most cater for both boys and girls. Forty-one grammar schools had preparatory departments with a total enrolment of about 5,600 pupils.

F. Secondary Schools

The 260 secondary schools had some 119,000 pupils in January, 1968, about half of them taking between 300-600 pupils : about the same proportion are single sex schools. The largest group, the secondary (intermediate) schools, numbering 157, had some 74,000 pupils. Schools in this group vary considerably in size and in organisation. All provide a general education with a varied choice of subjects up to the minimum school leaving age, and beyond, for the increasing numbers who remain at school voluntarily. Schools organised on comprehensive lines and certain others cover a wide range of examination subjects including the General Certificate of Education. Provision is being made for the introduction of the Certificate of Secondary Education examinations.

Some 42,000 pupils were enrolled in the secondary departments of the 81 grammar schools. These schools provide courses leading to Northern Ireland (and other) General Certificates of Education examinations at 'O' and 'A' levels. All but 21 are voluntary grammar schools (broadly similar to direct grant grammar schools in England and Wales) which take about 75 per cent of the pupils.

The numbers of pupils in technical intermediate schools (which are secondary schools being run in conjunction with institutions of further education) are being reduced and some 2,400 were enrolled in 22 of these schools.

G. Special Schools

Approximately 2,100 pupils are enrolled in 23 schools, where attendance for handicapped children in the various categories is compulsory to age 16. Special classes are also conducted in ordinary schools.

H. Further Education

As in England and Wales a significant number of young men and women between 15 and 18 years of age pursue courses in institutions of further education. The number of such students attending full-time or sandwich courses at the 32 colleges in the 1967-68 session was almost 9,000 and a further 7,000 approximately were attending on a day release or block release basis. Courses available at this level include the General Certificate of Education, Ordinary National Diplomas and Certificates of the City and Guilds of London Institute.

CHAPTER X

THE DEMAND FOR AND SUPPLY OF TEACHERS

A. Factors Increasing Demand

Since the Education Act (Northern Ireland) 1947, which determined the pattern of post-war educational development, there have been steadily increasing numbers of pupils on school rolls. Primary and secondary enrolments increased from about 212,000 in 1948 to over 323,000 in 1968, and forward estimates indicate that the trend will continue. A figure of about 390,000 is expected in the next decade and about 430,000 in the following decade. The increase results from the high birth rate, the raising of the school leaving age and the increase in the tendency to stay on voluntarily beyond the statutory leaving age.

At the same time better staffing standards have increased the demand for teachers. The new secondary (intermediate) schools provided under the post-war development for the reorganisation of 'all-age' primary schools required better pupil/teacher ratios and the pupil/teacher ratio for these schools which in the 1950's stood at about 26 to 1 is now about 20 to 1 and compares with that for grammar schools. The improvement in the ratio for primary schools has been steady - from over 34 to 1 to about 29 to 1. The number of teachers to which a school is entitled is prescribed by regulations of the Ministry and the most recent improvements are now taking effect. In the 20 years which have elapsed the number of full-time teachers in primary and secondary education has about doubled.

The proportion of men teachers in the primary schools has declined and in general a significant shortage of staff is often due to accommodation difficulties as is the incidence of oversize classes. Shortages in the secondary schools are mainly related to certain subjects such as mathematics and science.

Unqualified teachers are not employed to a significant extent and although there is recent provision for the employment of part-time teachers in primary schools, such teachers have traditionally been employed only in secondary schools and further education and the uptake in primary schools so far is negligible.

Loss of young teachers ('wastage') has tended to be lower than in England and Wales but there is some indication of an upward trend.

B. Assessment of Demand and Supply

The assessments of demand and supply of teachers for the needs of the area as a whole are regularly reviewed. A major review was completed in 1964 by the Advisory Council for Education, which is a Statutory Committee appointed by the Minister under the Education Act (Northern Ireland) 1947, and published in Command Paper 471. The techniques applied in the assessments are virtually the same as those outlined for England and Wales (Annex I of Part I). Teachers' records are at present partly mechanised and will soon for most sectors be fully computerised along with teacher payroll.

Full-time teachers now in service exceed 13,000 and the average net increase over the last five years was approximately 460. In the school year 1966-67 just over 1,100 qualified teachers some two-thirds of them women, were appointed for the first time in Northern Ireland. About 500 were trained in general colleges of education and 100 trained in specialist colleges. Over 400 were university graduates including about 160 with first or second class honours. The remaining 100 or so had recognised qualifications in such subjects as woodwork, music, commercial and technical subjects. About 30 per cent of these new entrants had been students at colleges or universities outside Northern Ireland.

Forecasts indicate a continuing rise in the numbers of teachers and that in general the supply will keep pace with the need. Some schools are however at present short of accommodation and as soon as this is remedied the demand for teachers will thereby be increased so that certain area shortages which exist may be aggravated at least temporarily.

CHAPTER XI

TRAINING ARRANGEMENTS AND THE SUPPLY OF TEACHERS

A. Colleges of Education

Most of Northern Ireland's teachers come from the three general colleges of education. One of these is a non-denominational college for both sexes operated by a Governing Body for the Ministry of Education and the other two are under Roman Catholic management, one being for men and the other for women. The colleges are financed by grants from the Ministry and by students' fees. Eligible students receive scholarships from the Ministry which are related to parental income.

In addition to the general colleges there is a College of Domestic Science and a College of Physical Education for women, while a one-year post diploma course for intending Art teachers, both men and women, is conducted in the College of Art. Provision is also made for courses of teacher training in other specialist fields such as commercial subjects.

The minimum age of entry is 18 where the course is at least three years and the minimum educational requirement is six passes at ordinary level in G.C.E. although many students have 'A' level passes. When the course does not exceed one year, the minimum age is 20 and the requirement is a university degree or a diploma or certificate related to the course concerned.

The number of students to be admitted to a college of education is determined by the Ministry, after consultation with the college authorities. The general arrangements for the admission of students are in the hands of the college authorities.

The normal length of a course of general training is three years and the courses available provide for specialisation in, for example, the teaching of the younger children in primary schools or in certain subjects such as crafts in the secondary (intermediate) schools. The length of the course of general training was increased from two to three years in 1948. At that time also a four-year course for intending teachers in secondary (intermediate) schools was instituted, but this course was recently superseded by one of three years duration. The training courses for women in the specialist subjects Domestic Science and Physical Education are also three years in duration.

In the session 1967-68 some 2,300 students were in courses of initial training in the general and specialist colleges of education in Northern Ireland. The intake of students has recently been of the order of 750 per annum.

The number of Northern Ireland students gaining admission to colleges of education in Great Britain for a general three-year course of training has risen steeply since scholarships were first awarded by the Ministry in 1963 under what are called the free-trade arrangements. Only 13 students were concerned in the first year but over 260 students were admitted in 1967. The free-trade arrangements are due for review after the 1968 intake.

B. Universities

A major source of supply of graduate entrants to the teaching service particularly in secondary schools and further education, has been the Queen's University, Belfast. The University has recently taken steps towards implementing a recommendation in the Report of the Lockwood Committee on Higher Education in Northern Ireland that it should move towards assuming responsibility for producing teachers for all kinds of schools in association with the Ministry and the colleges of education.

A degree of Bachelor of Education is being instituted for eligible students following appropriate courses in the colleges of education and will be administered by a Faculty of Education.

An Institute of Education is also being established by the University of which member institutions will initially be the University Department of Education and the three general colleges of education.

The new University of Ulster in Coleraine will have an education Centre, which will have the status of a school of the University. The first students will be admitted in 1968.

C. Recognition of Teachers by the Ministry

For teachers newly entering the service who have completed an approved course of teacher training the normal period of probation is one year; for other teachers it is two years. During the probationary period, recognition by the Ministry is provisional. When probation is completed, recognition is confirmed. Qualifications required for recognition are specified by the Ministry as are any related conditions; a graduate, without an approved course of teacher training, is not, for example, recognised as a qualified teacher in a primary school.

D. In-service training

An increasing volume of in-service training is being provided mainly in the form of short full-time courses or part-time courses at regional and local levels. Last year some 1,300 teachers attended the forty-three courses arranged by the Ministry.

E. Conditions of Service

The terms of appointment and conditions of service of teachers in Northern Ireland are not significantly different from those of teachers elsewhere in the United Kingdom. Salary scales and allowances are comparable with those payable in England and Wales and the structure of promoted posts is similar. Salary matters are negotiated by a Standing Committee composed of a teachers' side, an employers' side and representatives of the Ministry.

ANNEX

QUANTITATIVE DATA ON TEACHERS

Tables of teaching trends in Northern Ireland
at Primary and Secondary level
1950 to 1965

Table 1

Number of teachers employed in primary education by qualification
and sex from 1950 to 1965

	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
Qualified teachers								
Graduates	..	..	..	..	500	223	550	210
Non-graduates	..	..	..	..	5,879	4,383	6,035	4,633
All qualified	5,085	3,267	6,258	4,317	6,379	4,606	6,585	4,843
Non qualified	840	805	209	202	103	97	98	83
Total	5,925	4,072	6,467	4,519	6,482	4,703	6,683	4,926

Notes: Primary Education includes education at primary schools and in preparatory departments of grammar schools :
it is not possible to breakdown the figures for teachers between primary classes and pre-primary classes.
The figures in this table exclude part-time teachers.

Symbols used in the following tables:

.. not available
- nil or negligible.

Table 2

Enrolments and population of corresponding age in primary education from 1950 to 1975

	Enrolments 5 - 11	Population of Corresponding Age 5 - 11	Under 5	Over 11
1950/51	157,578	162,400	4,880	30,745
1955/56	173,979	176,000	5,154	32,015
1960/61	169,807	172,450	7,739	21,425
1965/66	181,389	181,650	9,962	5,673
1970/71	198,100	202,600	12,390	40
1975/76	205,300	207,800	12,500	40

Notes : Primary education includes education at primary schools and in preparatory departments of grammar schools : it is not possible to breakdown the figures for teachers between primary classes and pre-primary classes.

Because of the age of transfer from primary to secondary education, only half of the 11-year old age-group is included.

Table 3

New entrants, enrolments and graduands at general colleges of education by type of training received by sex from 1950 to 1965

	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
3 and 4 year training								
New Entrants	332	221	379	258	410	293	576	381
Enrolments	878	556	1,270	848	1,318	888	1,727	1,145
Graduands (1)	165	126	289	249	202	170	333	246
" 3 year	-	-	64	33	131	64	143	82
" 4 year	-	-	-	-	-	-	-	-
4/5 year combined Degree and Training								
New Entrants	..	..	63	29	65	32	7	4
Enrolments	..	..	217	110	206	100	27	17
Graduands : 4 year	10	6	23	9	15	7	5	5
5 year	-	-	6	1	12	3	2	1
1 year training								
New Entrants	13	3	18	3	30	12	39	17
Enrolments	13	3	18	3	30	12	38	17
Graduands	13	3	18	3	30	12	35	16
Total								
New Entrants	345	224	460	290	505	337	622	402
Enrolments	891	559	1,505	961	1,554	1,000	1,792	1,179
Graduands	188	135	400	295	390	256	518	350

(1) It was felt that some other word should be used to distinguish the term "graduates" as used in this table, from university graduates. The term "graduands" has been used.

Table 4

Teachers employed in general secondary education by qualification and sex
1950-1965

	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
<u>Secondary (intermediate) schools</u>								
Qualified Teachers								
Graduates	..	..	250	100	700	300	1,153	462
Non-graduates	..	..	265	111	1,226	564	1,936	999
All qualified Teachers	..	..	515	211	1,926	864	3,089	1,461
Non-qualified Teachers	..	..	7	5	32	19	20	16
Total	257	113	522	216	1,958	883	3,109	1,477
<u>Grammar schools</u>								
Qualified teachers								
Graduates	..	..	..	..	1,399	576	1,760	721
Non-graduates	..	..	..	..	297	219	339	248
All qualified Teachers	..	..	..	..	1,696	795	2,099	969
Non-qualified Teachers	..	..	..	..	2	2	-	-
Total	1,225	600	1,422	673	1,698	797	2,099	969
<u>All General Secondary</u>								
Qualified Teachers								
Graduates	..	..	..	..	2,099	876	2,913	1,183
Non-graduates	..	..	..	..	1,523	783	2,275	1,247
All qualified Teachers	..	..	..	..	3,622	1,659	5,188	2,430
Non-qualified Teachers	..	..	..	..	34	21	20	16
Total	1,482	713	1,944	889	3,656	1,680	5,208	2,446
<u>Part-Time Teachers</u>	260	190	289	195	357	241	..(1)	..(1)

(1) The actual number of part-time teachers is not known, but the full-time equivalent is 101. It is not possible to break down the figures for teachers by broad category of teaching subjects.

Table 5

Enrolments and population of corresponding age in general secondary education
1950-1975

	Enrolments				Population of Corresponding Age	
	Secondary Intermediate	Technical Intermediate	Grammar	Total	11-15	11-18
1950/51	6,696	4,578	23,174	34,448	100,400	164,800
1955/56	12,961	5,319	26,381	44,661	108,800	177,100
1960/61	47,173	4,488	32,467	84,128	119,150	192,550
1965/66	63,690	3,301	39,386	106,377	115,250	194,950
1970/71	86,000		46,300	132,300	125,250	202,250
1975/76	106,300		54,300	160,600	138,800	222,900

Note : Because of the age of transfer from primary to secondary education only half of the 11-year old age group is included.

Tables 6 and 7 combined

Full-time and part-time teachers and students in institutions
of further education

Vocational and technical education, full-time and part-time, is conducted in institutions of further education. The majority of courses are at the secondary level, i.e., non-advanced, but there are some advanced courses which might be classified as 'other education at the third level'. It is not possible to give separate figures of teachers and students at each level. The tables have not been completed therefore : the total numbers of teachers and students in the institutions are as follows :

	Teachers				Students	
	Full-Time		Part-Time		Full-Time	Part-Time
	MF	F	MF	F	MF	MF
1950/51	526	196	682	170	2,018	25,006
1955/56	626	222	908	269	3,079	30,109
1960/61	701	201	1,140	362	4,560	30,952
1965/66	849 (1)	276 (2)	1,779	614	9,383	47,383

(1) Includes 430 graduates.

(2) " 84 " .

Table 8

New entrants, enrolments, and graduands of specialised teacher training
(Non-university level) by type of training received .. by sex from 1950 to 1965

	1950/51		1955/56		1960/61		1965/66	
	MF	F	MF	F	MF	F	MF	F
Domestic Science Teacher Training								
New Entrants	15	15	17	17	23	23	49	49
Enrolments	36	36	48	48	78	78	149	149
Graduands	12	12	17	17	25	25	45	45
Physical Education								
New Entrants	-	-	17	17	20	20	20	20
Enrolments	-	-	48	48	57	57	62	62
Graduands	-	-	14	14	19	19	22	22
College of Art								
New Entrants	5	2	8	8	9	7	8	8
Enrolments	5	2	8	8	9	7	8	8
Graduands	5	2	9	9	7	5	8	8

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